

The SOUTHERN ECONOMIC JOURNAL

Volume XVII

JANUARY 1951

Number 3

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A JOINT PUBLICATION OF THE SOUTHERN ECONOMIC ASSOCIATION
AND THE UNIVERSITY OF NORTH CAROLINA
Published Quarterly at Chapel Hill, N. C.

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Volume XVII, Number 3

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The Southern Economic Journal is published four times a year, in January, April, July, and October, at Chapel Hill, N. C. The subscription price is \$4.00 per year, \$1.25 for single copies.

All communications should be addressed to the Managing Editor, P. O. Box 1289, Chapel Hill, N. C.

The articles in this *Journal* are indexed in *The International Index to Periodicals*, New York, N. Y.

Entered as second-class matter on May 11, 1936, at the post office at Chapel Hill, North Carolina, under the act of March 3, 1879, section 520, P. L. & R.

The SOUTHERN ECONOMIC JOURNAL

January 1951

ON THE THEORY AND MEASUREMENT OF
TREASURY INTEREST SAVING¹

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It would require considerable ingenuity to maintain that the attempts of governments to save interest account for every operation on the public debt. There have been other important objectives: the objective of economic stability, including the avoidance of inflation; the desire for a wide distribution of the debt, to name two other objectives. Nevertheless, the goal of saving interest appears to encompass a considerable part of Treasury debt practice. It is the intention of this paper to discuss the techniques by which interest saving was achieved and to measure the resultant interest saving.² These techniques fall into two major categories: (1) the attaching of special features to government securities; (2) the adjustment of debt operations to, and the control of, the movement and structure of market yields of government securities.

I

The first category of techniques has achieved the saving of interest by the creation of supply curves of loanable funds from bank and nonbank sources, and by government creation of currency. The special features that have created supply curves of loanable funds from the banking system are those which have made government bonds a basis for the issuance of private bank notes or for the creation of bank reserves. Thus the "circulation privilege" granted under the National Bank Act of 1863 permitted government bonds to be offered by national banks as collateral for the issuance of bank notes. Since World War I commercial banks have borrowed from the Federal Reserve Banks on their promissory notes collateralized by government bonds, in this way securing legal reserves. A kindred feature employed extensively in World War II can be called the "reserve expansion feature." Commercial banks were assured of Federal Reserve purchase of government securities at stable prices.

In all major borrowing periods the nonbank public has been induced to buy

¹ The author is greatly indebted for suggestions on this paper to Dean Simeon E. Leland of Northwestern University, Roy Blough of the Council of Economic Advisers and Professor Lloyd W. Mints of the University of Chicago. He is also very much indebted to Professor Henry M. Oliver, Jr. of Indiana University for reading several drafts of this paper and making many suggestions, both as to content and form. The responsibility for statements made is, of course, entirely the author's.

² It would be the subject matter of another paper to discuss the economic effects of such debt policy. This paper will stay within the limits suggested above.

³ Cf. R. A. Love, *Federal Financing*, pp. 34, 222.

government securities by the provision of special outlets for their holdings. One of these special outlets has been the presentation of securities to the government at a certain fixed price in payment for taxes or duties of various kinds. This is known historically as the "receivability feature."³ Securities at various times could also be presented to the government in payment for other government securities. This feature has been called the "conversion privilege." Government bonds since World War I have been the basis for customer borrowing from commercial banks.

In addition to special outlets, other inducements have been offered the investor. Perhaps the best known device of reducing interest costs is the exemption of securities from taxation. The gamble of capital gain has been extended the investor. This is most notably true of the British government. Such a gamble was created by the sale of perpetuities at a heavy discount. There was thus offered the possibility of gain by redemption at par. Similarly in the 17th and 18th centuries this gamble was extended by the holding of lotteries in connection with debt operations. One finds illustrated in U. S. debt history an opposite type of special feature. Rather than the offering of a chance to gamble, the investor has been induced to purchase by a guarantee against capital loss. This is in part the significance of nonmarketable issues.

Finally, governments have issued interest-bearing or non-interest-bearing securities to their creditors whose special feature was their "moneyness." Thus interest-bearing Treasury notes circulated as money from the War of 1812 down to the Civil War. Non-interest-bearing U. S. notes (greenbacks) were placed in circulation in the Civil War.

1

The measurement of the resultant interest saving is not as obvious as it appears to be on first sight. It might first seem correct merely to compare the yield of a new security at time of issue with the contemporary market yield of another security identical except for the device examined. Another type of analysis when data on contemporary market yields is not available would seem to be to compare yields at time of issue of both securities. There are several complicating factors, however. First, if governments had not borrowed by special-feature methods they would probably have borrowed by ordinary borrowing methods. The interest rate paid on such additional borrowing would presumably have been in excess of the rate actually paid on ordinary securities. Second, the use of special features might have entailed special costs which tended to offset "gross" interest saving.

How do we know that governments would have, as an alternative policy, engaged in ordinary borrowing?⁴ The basis of what the Treasury "would have done" must of necessity be conjectural. It is believed, however, that taxes, the only other alternative besides ordinary borrowing, could never have replaced the

⁴ It is best to define "ordinary borrowing methods" in negative terms as consisting of those borrowing methods not accompanied by the special features discussed.

amounts raised by special features. The tremendous clamor raised in all major borrowing periods against tax increases suggests that the alternative to special features would have had to be ordinary borrowing.⁵

This question of alternative borrowing methods need not be significant if the aggregate of loanable funds desired by the government, including the amounts actually raised by special-feature borrowing, could have been raised at the rate actually paid on ordinary borrowing. Such an assumption implies, however, that the supply curve of loanable funds vis-a-vis the ordinary security is a perfectly elastic one.

If the more reasonable assumption is made that the latter supply curve is less than perfectly elastic in the region of desired aggregate proceeds, then the use of the special-feature security will have made it possible to raise the desired amount of funds by a greater amount of interest saving than seems evident by merely comparing the yields on the two securities. Two kinds of interest saving can then be talked about. "Explicit" interest saving will be that saving measured by a comparison of the market yield of the ordinary security and the yield at issue price of the special-feature security. The amount of explicit interest saving is then the difference in rates multiplied by the amount raised by special-feature borrowing. "Implicit" interest saving, on the other hand, is the difference between the market yield on the ordinary security and the rate that would be necessary if the entire amount were raised in the ordinary security—this difference multiplied by the total amount borrowed.

The reader will notice that our concepts of interest saving bear some resemblance to the theory of "imperfect monopsonistic discrimination."⁶ One very important difference, however, must be indicated. Its mention should also serve to clarify the structure of the government loan market. There is no monopsonistic "exploitation," or more appropriately, interest saving by the payment of a supply price (interest rate) to the owners of loanable funds below the government's demand price. For loanable funds are borrowed until the point of equality of supply price with demand price (rather than equality of marginal outlay and demand price). In contrast to the Robinsonian case, the saving of interest by the government occurs not through the restriction of borrowing, but through the creation of *additional* supply curves, or where the government issues currency by the creation of supply points of new money. It is then comparison of the interest rate on the original supply curve of loanable funds by ordinary methods with the average interest rate paid which indicates the reduction in interest costs by the use of special borrowing techniques.

The "anatomy" of the government loan operation can now be indicated. The point A represents the amount borrowed by ordinary methods at the rate r_o .⁷ The

⁵ See W. J. Shultz and M. R. Caine, *Financial Development of the United States*, p. 256; Sidney Ratner, *American Taxation*, pp. 321-399; Randolph E. Paul, *Taxation for Prosperity*, chaps. 12-14.

⁶ Cf. Joan Robinson, *The Economics of Imperfect Competition*, pp. 302 ff.

⁷ It is not necessary, however, to assume that ordinary borrowing actually occurs during the loan operation (although this is usually the case). In the absence of ordinary borrowing,

point B represents the amount borrowed by special-feature securities at the rate r_s . The point T indicates the aggregate amount OD borrowed at the average rate r_a . The point E indicates the rate that would have had to be paid had the aggregate amount OD been borrowed entirely by ordinary methods. The points A and E lie on the supply curve of loanable funds by ordinary borrowing methods SS. The line dd shows that the government has a perfectly elastic demand curve for loanable funds vis-a-vis ordinary securities. Such a curve is not inconsistent with the GG curve which indicates an aggregate inelastic demand.⁸ So long as

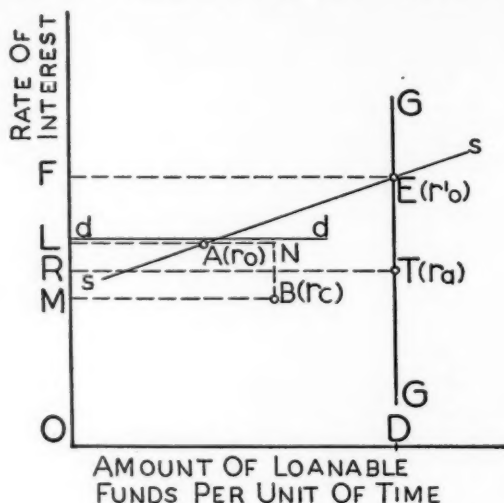


FIG. 1

the government has some residual borrowing device assuring it of the desired aggregate of funds, the component demand curves for one or more types of borrowing can be perfectly elastic.⁹ Point B represents such residual borrowing. For the sake of generality it is preferable to leave the point B as it is without indicating a supply curve passing through it. In this way provision is made for the use of government money as a residual borrowing device. The area of aggregate interest saving is represented by the rectangle FETR. Explicit saving is shown by the rectangle MBNL. Implicit saving is thus FETR minus MBNL.

r_o represents the market yield on A volume of ordinary securities outstanding. And instead of r_s which implies ordinary borrowing, r_s implying special-feature borrowing only, should be used.

⁸ Assuming an inflexible aggregate demand for government revenues (as would be true in most borrowing periods), the fact that tax revenues were not a feasible alternative to borrowing would imply that the aggregate demand for debt revenues in any time period was a perfectly inelastic demand.

⁹ In practice such curves may be perfectly elastic up to some set amount of funds.

2

(i) Historically there have been many instances of explicit interest saving. In the War of 1812, Treasury notes were sold preponderantly at 5.4 per cent. The eight loans on Treasury stock carried an average effective yield of 7.26 per cent.¹⁰ In the Civil War, U. S. notes (greenbacks) were issued at a zero rate compared with an average rate on "ordinary borrowing" of 5.5 per cent. In World War I, fully tax-exempt Victory notes sold for $3\frac{1}{2}$ per cent as compared with $4\frac{1}{2}$ per cent for partially tax-exempt notes. In World War II, borrowing from the banks (which was accomplished by the reserve expansion feature) took place at lower average yields than borrowing from the nonbank public.¹¹ In 1947 (a time of increasing average yields) the average yield on government security holdings of insured commercial banks was 1.50 per cent as compared with a low of 1.25 per cent for member banks in 1943.¹² On the basis of the average cost to the Treasury of marketable issues sold during war loan drives and the rates paid on nonmarketable issues, and weighting by the respective amounts, the average cost of borrowing from the nonbank public during World War II can be estimated as 2.26 per cent.¹³

(ii) Despite the instances of explicit saving, the significant interest saving has been implicit. Where extreme oligopoly existed in the loanable funds market, nonmonetary devices, that is, devices involving borrowing from the nonbank public may have been responsible for implicit saving. Thus in the War of 1812 the conversion feature was forced on the government by the loan contractors.¹⁴ In the absence of the privilege it is possible to say that the supply of loanable funds would have been perfectly inelastic at zero amount of funds. Similarly there is suggested the rationale for the use of discount bonds and lotteries in English debt history. Government loans were usually bid upon by four or five contractors at the most. Collusion was not prevented.¹⁵ Chancellors of the Exchequer made frequent admissions of their frustration the hands of the lenders.¹⁶

¹⁰ Calculated on the basis of data in Love, *op. cit.*, Appendix.

¹¹ This should indicate that the special feature does not necessarily inhere in the security itself. It may only obtain as a result of a certain security-holder combination. Thus Treasury bills and certificates of indebtedness in the hands of the nonbank public would constitute ordinary securities; in the hands of the banks they carried the reserve expansion feature. Since the security would bear the same rate no matter who owned it, explicit saving by the reserve expansion feature is the result of the greater relative importance of low-yield securities in bank portfolios as compared with nonbank holdings.

¹² *Annual Report of the Federal Deposit Insurance Corporation for the Year Ended 1947*, p. 54; Anna Youngman, *The Federal Reserve System in Wartime*, p. 39.

¹³ See Federal Reserve Bank of New York, *Monthly Letter*, Jan. 1946, p. 1; *Treasury Bulletin*, Sept. 1948, pp. 26-30.

¹⁴ Love, *op. cit.*, p. 46.

¹⁵ J. J. Grellier, *The Terms of all the Loans which Have Been Raised for the Public Service During the Last Fifty Years* (London: H. L. Galabin, 1799), pp. 4, 34.

¹⁶ See E. L. Hargreaves, *The National Debt* (London: Edward Arnold and Co., 1930), pp. 67, 112; William Newmarch, *On the Loans Raised by Mr. Pitt During the First French War, 1793-1801* (London: Effingham Wilson, Harrison, and Nissen and Parker, 1855), p. 3.

In the United States the nonmarketable feature may have been an important factor in the sale of Savings Bonds in World War II. Their sale was vigorously promoted on the basis of their legal guarantee against capital loss.¹⁷ In this way the feature may have been an important source of implicit saving.

Implicit interest saving has been greatest for devices involving the banking system or government creation of money. Such special features have consistently been the residual borrowing devices. They thus secured loanable funds on which the implicit rate of interest by ordinary borrowing methods was highest. The failure of loans in the War of 1812 resulted in resort to Treasury notes. Banks in World War I were regarded as the residual lenders absorbing the "undigested issues" only.¹⁸ In World War II banks absorbed a very substantial amount of bonds from the nonbank public. In this way they facilitated "residual" purchasing of new issues by the nonbank public. To a lesser extent, they purchased bonds directly from the Treasury on a residual basis.

The amount of implicit interest saving is dependent on the total amounts of funds raised and the elasticity of the supply curve of loanable funds by ordinary borrowing. The fact that monetary devices were residual, in itself would indicate only that the supply of loanable funds by ordinary methods and by special-features offered the nonbank public were not perfectly elastic at the desired amount of funds. What evidence is there for more substantial saving?

3

There is first of all the statements of government officials as to inelasticity. In 1814 the Committee on Ways and Means stated, "A reliance on loans, in the present situation of this country, would be uncertain, and the terms on which they could be obtained not such as to induce a resort to them at the present moment."¹⁹ Secretary of the Treasury McCulloch in the course of an attack on greenbacks a few years after the Civil War admitted, "If this means of raising money had not been adopted, bonds would undoubtedly have been sold at a heavy discount."²⁰ In World War I the elasticity of the supply curve of loanable funds from nonbank sources was evaluated as follows:

To the extent . . . that what was accomplished in saving fell short of actual requirements, there was a margin of bonds that could not be paid for immediately out of savings and which it became necessary for the banks to carry, either directly or indirectly through loans to purchasers. This expansion of bank loans must be kept in mind to understand the situation. Failure to understand it leads to the impression held by many that Liberty bonds could all have been sold to investors had they borne a higher interest rate. No rate within reason could have accomplished this end, as the investment funds to absorb

¹⁷ "Summary Report of Secretary Morgenthau to the Congress," July 21, 1945, *Treasury Report*, 1945, pp. 410-411.

¹⁸ *Annual Report of the Federal Reserve Board*, 1917, pp. 9, 16; 1919, pp. 2, 69-70; Henry Parker Willis, *The Federal Reserve System*, p. 1162.

¹⁹ Report of the Committee on Ways and Means, quoted in Albert S. Bolles, *The Financial History of the United States from 1789 to 1880* (New York: D. Appleton and Co., 1883), p. 236.

²⁰ *Treasury Report*, 1867, p. xi.

these enormous issues in their entirety simply did not exist and their growth could not have been induced to an adequate degree by higher rates.²¹

More stringent evidence would relate to the shape of the supply curve of loanable funds. It is not possible in this paper to present adequately, however, the relevant evidence. Suffice it to say that the opinion of economists and whatever empirical evidence is available, would very definitely suggest inelasticity in the supply curve of savings. While statistical dishoarding curves, on the other hand, may be consistent for certain years with the hypothesis of relative elasticity, they are also consistent with rival hypotheses. If it is assumed that the dishoardings curve is relatively elastic, the possibility obtains that higher interest rates would have served principally to activate idle balances, thus exerting an inflationary effect. The significance of inflation for interest saving is now to be considered.

II

The creation of supply curves of loanable funds or the issuance of money by the government may involve a cost to the borrowing governments. For in the process the government's demand curve may similarly be shifted to the right. Tax exemption or inflationary special-feature devices would have this effect. The extra interest and debt retirement costs of additional borrowing must be allowed for before any net estimate of interest saving is possible.²²

Did borrowing techniques so shift the government demand curve for loanable funds to the right that net interest saving disappeared or became insignificant? For net interest saving to be less than gross interest saving, it is necessary that special-feature techniques be a unique cause of shift in the demand curve. This would certainly be true of a feature such as tax exemption. Historically, however, inflation has been the major cause of a shift in the government's demand curve and there is possibility of considerable inflation had special-feature techniques not been employed. In the Civil War, for example, the alternative to greenbacks would have been (1) issuance of interest-bearing securities to government creditors; (2) borrowing from the nonbank public; (3) direct borrowing from the banks of "new money." The latter alternative would have had an obvious inflationary effect. The other methods would also have had an inflationary effect, although possibly not to the same extent. Interest-bearing securities when they were issued subsequently became part of the money supply through their use as circulating media.²³

It then seems possible for the Civil War period to set net explicit saving, if not equal to, at least as approximating gross explicit saving of \$74 million.²⁴ This

²¹ *Annual Report of the Federal Reserve Board*, 1919, pp. 1-2.

²² The conditions for net interest saving can be stated algebraically. For reasons of space they are not here included.

²³ Wesley C. Mitchell, *A History of the Greenbacks* (Chicago: University of Chicago Press, 1903), pp. 141-181; Don C. Barrett, *The Greenbacks and Resumption of Specie Payments, 1862-1879* (Cambridge: Harvard University Press, 1931), pp. 48-56.

²⁴ This is the estimate for gross explicit saving found in Mitchell, *op. cit.*, pp. 174, 411, 415; and in his "The Greenbacks and the Cost of the Civil War," *Journal of Political Econ-*

amounted to approximately one-fourth of interest expenditures during the Civil War years. Explicit saving after the war period should also be considered. There is also the factor that greenbacks constituted a perpetual debt while ordinary debt would probably have been retired. There is thus a saving of debt retirement costs by the use of greenbacks. This further ignores implicit saving. As already indicated, Secretary of the Treasury McCulloch stated that if greenbacks had not been used, bonds would have had to be sold at a heavy discount.²⁵

The same argument that alternative borrowing methods would have been inflationary is applicable to more recent borrowing periods. One could say that in World War II idle balances would have been activated by more intensive borrowing from the nonbank public. It may even be contended that the actual methods followed exerted no significant effect on the price level! One recent study of the wartime borrowing program has concluded, "The years of greatest increase in either 'money' or total liquid assets are in general those of the least rather than those of the greatest price rises, and vice versa, and no leads or lags, however cunningly devised, seem to help. On the face of the table the direct controls were all-important and fiscal-monetary policy was insignificant."²⁶ Acceptance of this conclusion would imply that gross interest saving of World War II equalled net interest saving.

What would this mean in terms of amount of saving? If it is assumed that special-feature borrowing was not inflationary and that an extra 90 billions of debt (representing bank absorption) would have been absorbed by the nonbank public at an average rate of $4\frac{1}{2}$ per cent, there is secured an interest saving for the war years alone of 18 billions.²⁷ This would imply an interest elasticity of .69.²⁸

omy, March 1897, p. 142. It is not Mitchell's final estimate, however. Net explicit interest saving is estimated at \$28 million after subtracting the interest cost at 6 per cent on the increase in the debt caused by greenbacks. Offsetting this, however, by the estimated inflationary debt increase, the net financial cost of greenbacks is placed at \$589 million (*A History of the Greenbacks*, p. 419). For the reasons given above, however, Mitchell's net estimates are not accepted. There is also the additional criticism that greenbacks contributed only one-third of the wartime increase in the money supply, not counting bank deposits (*ibid.*, p. 179). But nonetheless inflation is discussed wholly in terms of greenbacks (*ibid.*, pp. 141-181).

²⁵ To the extent that greenbacks did have a uniquely inflationary effect, thus offsetting gross saving, they may simultaneously have increased implicit saving by shifting the supply of loanable funds from nonbank sources to the right. It is perhaps significant that the successful popular loans of 1863 and 1865 under the aegis of Jay Cooke followed on prior increases in the supply of legal tenders. Secretary of the Treasury Chase emphasized that the success of loans depended on prior increases in greenbacks. Davis R. Dewey, *Financial History of the United States* (3d ed.; New York: Longmans Green and Co., 1907), pp. 310-311.

²⁶ Henry C. Murphy, *The National Debt in War and Transition*, p. 276, also pp. 270-287.

²⁷ The actual interest costs on the debt increase were arrived at by subtraction from annual interest payments of interest payments in the fiscal year 1940. Hypothetical interest costs for each fiscal year by ordinary borrowing were estimated by multiplying by $4\frac{1}{2}$ per cent (1) half of the debt increase of the current fiscal year; (2) the total debt outstanding at the end of the previous fiscal year.

²⁸ Calculated on the basis of an average rate of 2.26 per cent having been paid to the nonbank public in World War II and a 69 per cent increase in nonbank borrowing.

Assuming, on the other hand, that special-feature borrowing occasioned inflation, the results are considerably modified. If it is assumed that the increment in the debt due to borrowing from the banks can be measured by some price index—say the wholesale commodity price index—the inflationary debt increase for the fiscal years 1941 through 1946 is approximately 51 billions or 23 per cent of the total debt increase of 221 billions.²⁹

This would imply, that to avoid borrowing from the banks 170 billions or 39 billions more than was actually raised in this fashion would have had to be borrowed from the nonbank public. If a similar interest elasticity as in the previous estimate is postulated, a rate of 3½ per cent would have had to be paid to the nonbank public to secure this additional amount. On this basis, the wartime interest saving would amount to only 6 billions and over 30 years would have to elapse before the inflationary debt increase would have been "paid for" by interest saving.³⁰ The conservatism of such an estimate must be emphasized. It imputes—unjustifiably—the entire inflationary increase in government expenditures to special-feature borrowing. At the same time, however, it ignores the interest-saving effects of inflation. If special-feature borrowing did have a uniquely inflationary effect, it also shifted the supply curve of loanable funds from nonbank sources to the right as a result of increased levels of money national income. The ability to raise 131 billions from the nonbank public would to some extent be dependent on this inflation. Some higher rate would have to be posited to raise the increased additional amount necessary in the absence of inflation. All this assumes ultimate debt retirement. If the attitude is taken that no effort will be made in the future to substantively reduce the present debt size, an offset to interest saving because of inflationary debt increase is unnecessary.

III

The rates of interest on new issues of securities and their maturities are set by the government, at the present time principally by the Secretary of the Treasury by virtue of his discretionary power. The point of reference, when the government sets the interest rate structure on new issues, is provided by the term structure of market yields on government issues. For the most part, either rates similar to those on similar maturities outstanding in the market are set on new issues, or special features are offered which result in the setting of lower rates.³¹ In previous sections, discussion of government interest saving was predicated on this adjustment of new issues to a given term structure of market

²⁹ See e.g., *Treasury Bulletin*, Oct. 1949, p. 31. By applying a price index to the difference between tax receipts and government expenditures (the government deficit) there is obviated the need to consider separately the effect of inflation on expenditures and tax receipts. In effect this implies a uniform impact of inflation both on government expenditures and tax receipts.

³⁰ The second estimate of interest saving has been arrived at in the way indicated in n. 27 except that debt increases were first corrected for inflation before being multiplied by 3½ per cent. Postwar annual interest saving of 1.5 billions was assumed which is below the hypothetical wartime peak of 1.7 billions. This is to allow for the effects of possible postwar debt retirement.

yields. Now this term structure of market yields must itself be analyzed as a possible source of interest saving.

The most significant technique of saving interest associated with the market structure centers on government control of this structure. Government determination of market yields obtains either when market yields are depressed or prevented from rising by government action. In such cases the government can be said to have an "interest rate policy."³²

1

The mechanics of control consist of direct and indirect techniques. Direct control of market yields occurs through official purchase of government securities. By such purchases a ceiling on market yields is set. This is exemplified by World War II experience when posted buying rates and Federal Reserve System purchases stabilized the pattern of market rates at yields ranging from $\frac{3}{8}$ of 1 per cent on Treasury bills to $2\frac{1}{2}$ per cent on long-term bonds.³³ It is possible for control to be of a more comprehensive sort: the provision of a floor as well as a ceiling to market yields by willingness of the governmental agency to sell "governments" at a fixed price. This transpired at various times during and after World War II when the Federal Reserve System sold Treasury bonds on its own behalf and on behalf of the Treasury investment accounts.³⁴

Indirect controls are those controls which influence the private demand for and supply of private and public debt in such a way that a floor on the market prices of governments (a ceiling on market yields) tends to be maintained.

³¹ This is illustrated by comparison in every major borrowing or refunding period of the rates set on new issues and comparative market yields. The deliberateness of the adjustment process is well indicated by various Treasury Reports of the 1920's (see, especially, *Treasury Report*, 1925, pp. 42-43; also, 1922, p. 59; 1926, pp. 46-47; 1927, pp. 308-309).

There are exceptions to the general principle of adjustment stated above which apply to very recent experience. After World War II, instead of adjustment of rates on new issues to market yields, the rates set were out of line with market yields and designed to influence market yields. The Treasury beginning in the second half of 1947 took action to encourage a rise in yields by exchanging maturing certificates for securities on terms which gradually became more favorable for the buyer. Such exchanges were intended to and did result in higher market yields on short-term issues (see *Federal Reserve Bulletin*, Nov. 1947, pp. 1349-1350; March, 1948, pp. 273-4; also, Lester B. Chandler, "Federal Reserve Policy and the Federal Debt," *American Economic Review*, March 1949, p. 411 ff.).

³² In a more restricted sense the government has an "interest rate policy" even when adjusting to the market yield. This is so when instead of paying the interest rate that would be necessary to raise the aggregate desired amount of proceeds by ordinary methods, its perfectly elastic demand curve indicates only a willingness to pay the current market yields for ordinary borrowing.

³³ Treasury investment accounts (handled by the System) offered considerable support to bond prices in 1941-42, and thus constitute another agency of direct control. On the whole, however, the role of investment accounts in support operations has been minor. This is in strong contrast to English experience. Since the great debt conversion of 1932, the English Treasury has extensively employed "department" funds for the dual purpose of underwriting new issues and maintaining market yields.

³⁴ Paul Heffernan, *New York Times*, Financial Section, Nov. 16, 1947, p. 1; *Annual Report of the Board of Governors of the Federal Reserve System*, 1947, pp. 4, 68.

Government securities stand in a competitive relation in the market with other securities. The maintenance of government market yields is then facilitated if private yields are sustained on low levels by diminution of the offering up of private securities.

In World War II the supplying of private securities in exchange for money was reduced in a number of ways. The sources of business financing were government advances or internal funds—revenues allocated for post-war reserves, for depreciation, for taxes, and revenues representing increases in current liabilities and profits after dividends.³⁵ As a result the demand for bank credit remained relatively constant. Because of government financing of war plant construction, the private demand for long-term credit was curtailed.³⁶ This is in contrast to World War I when the competition of private investment outlets both in the short-term and long-term credit markets proved an important factor in rising market yields.³⁷

Turning to the demand and supply for government issues in the market, indirect methods of maintaining market yields include some of the factors that increased the supply of loanable funds vis-a-vis new government issues, namely the effects of the collateral and reserve expansion features attached to government bonds. On the supply side of the market, the offering up of governments was reduced by the sale of debt carrying the nonmarketable feature. Commodity price control and rationing would also be techniques encouraging government bond purchases.

One would think that expectations of price maintenance would be a logical byproduct of government security price control and that this would help to maintain the private demand for all government securities. This is not entirely so. It is true the Federal Reserve System had no difficulty in maintaining long-term bond prices. But the fact that a differential yield was being maintained on short- and long-terms resulted in increased sales to the System of short-dated issues. Investors sold these issues in order to "play the pattern of rates."³⁸

2

Control of market yields has definite implications for interest saving. If yields are made to fall, the amount of fall multiplied by the amount of debt issued at the lower yield will indicate the amount of interest saving. Or if the market rate is maintained against an upward pressure, the saving of interest is indicated by the probable extent of rise of the market yield in the absence of control. The second type of control is clearly indicated by World War II experience. Although there is no satisfactory way of measuring the resultant interest saving, some rough estimate can perhaps be secured on the basis of World War I

³⁵ "Business Finance and the War," *Federal Reserve Bulletin*, Jan. 1944, pp. 63-67.

³⁶ *Ibid.*

³⁷ Robert V. Rosa, "Impact of the War on the Member Banks, 1939-1946," *Federal Reserve Policy*, Postwar Economic Studies No. 8 (Board of Governors of the Federal Reserve System, 1947), p. 52.

³⁸ *Annual Report of the Board of Governors*, 1945, p. 12.

experience. If the $\frac{3}{4}$ of 1 per cent rise on taxable issues is taken as the possible extent of rise in the absence of control, over the entire war period, one year's saving on the \$56 billions of debt increase in the fiscal year 1945 would alone have amounted to \$400 millions.³⁹

Apart from control, market yields will still have an implication for interest saving. The downward conversion of debt as basic yields fall "exogenously" results in interest saving. Such declines in yields occurred after every major borrowing period except World War II. Downward conversions have generally been associated with interest saving through debt retirement. The period after World War I offers a good example of the resultant interest saving. As a result of retirement and conversion, the computed annual rate of interest on the public debt declined from 4.225 per cent at the end of the fiscal year 1920 to 3.807 per cent at the end of the fiscal year 1930 and interest costs declined from \$1,020 millions to \$659 millions.⁴⁰

Whether yields are falling or rising, there is the third possibility of interest saving by selecting maturities carrying the lowest market yields. Such saving has not been consistently or deliberately sought. Until 1931 the Treasury yield curve appears to have been for the most part a falling one. Nonetheless before that time other Treasury motives besides interest saving dictated the use of a considerable volume of short-terms. The desire for rapid debt retirement explains the large proportion of short-terms in the Civil War and the refunding loans of the 1920's. The desire for reducing the average cash balance in the general fund and the desire for monetary stability were factors explaining their use in World War I. It is likely, on the other hand, that the percentage of short-dated issues rose in World War II because of their cheapness.⁴¹ For similar reasons there was emphasis on long-dated issues after the Civil War.⁴²

IV

In its desire to reduce interest costs the Treasury has offered investors a variety of special-features. In addition it has adjusted debt operations to, and

³⁹ In World War I, the advance in the coupon rate on taxable Liberty bonds and Victory notes was spread over 4 Liberty loans. The conversion privilege enabled 4 per cent bonds of the 2nd loan to be converted into 4 $\frac{1}{2}$ per cent issues of the Third and Fourth loans. The 4 $\frac{1}{2}$ per cent rate, however, was paid only to the purchasers of the Victory loan. Basing then the analysis on World War I experience, the simplest and most conservative estimate is to figure $\frac{3}{4}$ of 1 per cent on the debt increase of the fiscal year 1945, although of course, judging again by World War I experience, issues of previous years would also have enjoyed savings of this kind. Any attempt at stratification of the bond market in time, as thus practiced in World War I, would have been likely to cause great difficulties, however. The sale or redemption of securities through official outlets, with their reinvestment into higher yielding issues would have doubtlessly occurred. If official price support or redemption were not offered, capital depreciation on early issues would have caused difficulties to the government in successive loan campaigns.

⁴⁰ *Treasury Report*, 1948, p. 534; *Banking and Monetary Statistics*, p. 513.

⁴¹ Cf. statement of Under Secretary of the Treasury Daniel W. Bell, U. S. Congress, House of Representatives, Hearings before Committee on Ways and Means on H.R. 2404, 79th Cong., 1st Sess., Feb. 22, 1945 (Washington: Government Printing Office), p. 51.

⁴² *Treasury Report*, 1881, p. 27.

controlled, the movement and structure of market yields of government securities. The interest saving from special features can be conceived of in an explicit and implicit sense. Explicit saving is measured by a comparison of rates on special feature and ordinary borrowing. Implicit saving considers the elasticity of loanable funds by ordinary borrowing methods. It reflects the difference between what was paid on the amounts borrowed and what would have had to be paid had the entire sum been borrowed by ordinary methods. With certain exceptions, the significant interest saving has been implicit. Despite the inflationary effects of special-feature borrowing, it has been argued that net interest saving has still obtained.

The features most successful in interest saving have been the features with the most "moneyness." This would include the issuance of money by the government and the issuance of securities which became the basis for legal reserves and money creation by the banking system. The maintenance in World War II of the interest rate structure has also been accompanied by money creation.

There is to be noticed a historical change in the devices employed for the creation of money. One can conjecture that they reflect the history of reserve requirements. In the era of the Wars of 1812 and the Civil War, gold and silver were the moneys of ultimate redemption. When redemption could not be maintained during these war periods, no substitute reserve money was immediately devised. Private money creation was then deemed impossible or undesirable. Direct money creation by the government supplied the answer to the inelasticity of supply of loanable funds. But the later emergence of the concept of bank reserves as a *deposit* with a central bank removed the need for government money creation. Provided the banks could secure sufficient deposits with the central bank, they could create an indefinite supply of money. The devices then became methods of increasing these deposits. Here is a possible explanation of the collateral feature in World War I and the reserve expansion feature in World War II. Borrowing of the new supply of money from the banks could then be done by the government either directly or indirectly. To a considerable extent the borrowing has been indirect. The nonbank public alternatively borrows from the banking system or sells it government securities. Their newly created deposits are then turned over to the Treasury in exchange for securities. The first indirect method was most important in World War I, the second in World War II.

COTTON COMPETITION—U. S. AND INDIA—1929-1948*

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For the twenty-year period, 1929-1948,¹ India² stood second to the United States in the production of cotton in the world. Thus attention is naturally directed to India as a possible competitor with American cotton in foreign markets.³ In this article we survey the more important developments in the Indian cotton situation during the period, 1929-1948, in order to determine the nature and strength of Indian competition with American cotton. Our further purpose is to appraise the future possibilities of competition for foreign markets between American and Indian cotton.

I

Indian cotton production (Table 1), unregulated by government until the middle of World War II, reached a peak for the period under study in the 1936 season when some 5.2 million bales⁴ were grown. For the 1948 season production was the lowest of the entire twenty years, totaling only 2.8 million bales. Governmental restrictions on production were not in effect in either year.⁵

U. S. cotton production, on the other hand, reached its peak for the period in the 1937 season when almost 19 million bales were produced. Governmental restrictions on acreage, applied intermittently from 1933 onward, were not in effect in 1937. The low point in cotton production for the twenty-year period being considered was in 1946 when 8.6 million bales were grown. No official restrictions were in effect in this season.

Preliminary figures for the 1948 season indicated that production in the United States would exceed 14.8 million bales, approximately 18 per cent above the

* The author wishes to express his appreciation of the assistance of Dr. Calvin B. Hoover who read critically an earlier draft of this article and Dr. Frank A. Hanna who advised on some statistical problems.

¹ Unless otherwise specified, years refer to the "cotton year" which for statistical and other purposes begins on August 1 of the year given.

² Unless otherwise specified, "India" and "Indian" will refer to pre-partition India, thus including Pakistan, but excluding Burma, separated from India in 1937.

³ U. S. tariff and quota restrictions eliminate the possibility of competition between American and Indian cotton in the U. S. market. A small quantity (relative to total U. S. consumption of cotton) of Indian cotton is normally imported into the United States; almost all of this cotton is of a staple length so short as to be considered non-competitive with American cotton. The textile mills of India, on the other hand, are included in this discussion since India is one of the larger importers of cotton (although not in recent years of American cotton).

⁴ Unless otherwise specified, "bale" refers to the standard statistical bale of 500 pounds gross weight, 478 pounds net weight.

⁵ R. P. Dunn, Jr., *Cotton in Pakistan and the Indian Union*, p. 86. There may have been local restrictions in particular areas in 1948. *ibid.*

average for the 1929-1948 period. Indian production in this same season was only 68 per cent of the average for that country for the period.

The statistics on cotton production indicate that while U. S. production has made a strong recovery from the war-time slump, Indian cotton production has declined steadily since 1943. Unless India can reverse the present downward trend in production by increasing sharply either acreage under cotton or yield

TABLE 1
Cotton Production, United States and India, 1929-1948
Quantity, Index Numbers, and Percentage of World Total

YEAR BEGINNING AUGUST 1	QUANTITY		INDEX NUMBERS		WORLD TOTAL	
	U. S. 1,000 Bales*	India† 1,000 Bales*	U. S.‡	India§	U. S.	India
			(Base: 1929-1948)		per cent	per cent
1929	14,825	4,331	117.9	104.6	55.19	16.12
1930	13,932	4,300	110.8	103.9	53.18	16.41
1931	17,097	3,325	135.9	80.3	61.39	11.94
1932	13,003	3,844	103.4	92.9	53.18	15.72
1933	13,047	4,189	103.7	101.2	48.47	15.56
1934	9,636	3,987	76.6	96.3	40.47	16.75
1935	10,638	4,874	84.6	117.8	39.66	18.17
1936	12,399	5,217	98.6	126.1	39.42	16.59
1937	18,946	4,788	150.6	115.7	49.08	12.40
1938	11,943	4,227	94.9	102.1	41.06	14.53
1939	11,817	4,108	93.9	99.2	40.90	14.22
1940	12,566	5,089	99.9	123.0	41.13	16.66
1941	10,744	5,127	85.4	123.9	39.44	18.82
1942	12,817	3,935	101.9	95.1	47.42	14.56
1943	11,427	4,401	90.8	106.3	45.00	17.33
1944	12,230	3,693	97.2	89.2	49.34	14.90
1945	9,015	3,529	71.7	85.3	42.55	16.66
1946	8,640	3,557	68.7	85.9	40.06	16.49
1947	11,851	3,410	94.2	82.4	46.68	13.43
(p)1948	14,868	2,840	118.2	68.0	51.38	9.81

* 500 lbs. gross weight bales.

† Includes Pakistan. Commercial and non-Commercial production.

‡ Average 1929-1948, 12,572,000 bales (500 lbs. gross weight).

§ Average 1929-1948, 4,137,000 bales (500 lbs. gross weight).

(p) Preliminary.

Sources: compiled or derived from U. S. Department of Agriculture, *Agricultural Statistics*; International Cotton Advisory Committee, *Cotton Quarterly Statistical Bulletin*.

per acre, she will not be able in the future to offer competition to American cotton in foreign markets in a degree at all comparable to that of the nineteen-thirties.

II

Cotton acreage (Table 2) provides a better measure of farmers' reactions to changing economic conditions than production since production is a function of

both acreage and yield and the latter is to a considerable degree affected by such non-economic factors as weather and insect infestations.

Changes in cotton acreage, in the absence of governmental control, reflect changes in farmers' estimates of the profitability of using land for cotton production rather than for some alternative use (including allowing it to lie fallow). When cotton acreage remains stable over a considerable period of time as was

TABLE 2
Cotton Acreage, United States and India,* 1929-1948
Quantity, Index Numbers, and Percentage of World Total

YEAR BEGINNING AUGUST 1	QUANTITY		INDEX NUMBERS		WORLD TOTAL	
	U. S. 1,000 Acres	India 1,000 Acres	U. S.	India	U. S.	India
			(Base: 1929-1948)		per cent	per cent
1929	43,242	25,922	158.4	121.6	50.44	30.24
1930	42,454	23,812	155.5	111.7	49.81	27.94
1931	38,705	23,722	141.8	111.3	47.56	29.15
1932	35,939	22,483	131.6	105.5	46.46	29.07
1933	29,978	23,739	109.8	111.4	39.78	31.50
1934	26,866	23,907	98.4	112.2	36.50	32.48
1935	27,335	25,999	100.1	122.0	35.96	34.21
1936	30,054	25,219	110.1	118.4	35.39	29.70
1937	33,623	25,746	123.1	120.8	36.15	27.68
1938	24,248	23,482	88.8	110.2	31.49	30.49
1939	23,805	21,356	87.2	100.2	32.90	29.76
1940	23,861	22,902	87.4	107.5	31.50	30.23
1941	22,236	24,151	81.4	113.3	29.90	32.48
1942	22,602	19,203	82.8	90.1	33.50	28.46
1943	21,652	21,086	79.3	99.0	31.78	30.95
1944	20,009	14,843	73.3	69.6	33.42	24.79
1945	17,241	14,668	63.1	68.8	31.10	26.46
1946	17,615	14,861	64.5	69.7	31.06	26.20
1947	21,269	14,222	77.9	66.7	35.46	23.71
1948	23,003	14,600	84.2	68.5	35.46	22.50

* Includes Pakistan.

Sources: compiled or derived from U. S. Department of Agriculture, *Agricultural Statistics*; and *Foreign Crops and Markets*.

the case in India in the nineteen-thirties the meaning is not so clear. Stability in acreage planted to cotton⁶ may reflect stability in the relative profitability of

⁶ Actually, the statistics available, except for the United States, are those for acreage harvested, but the difference between acreage planted and acreage harvested (called the abandonment) is ordinarily due to natural causes (i.e., crop failure). Only a catastrophic change in economic conditions after planting will cause abandonment for that reason alone. When planting to cotton covers a large and varied geographical area, as in the United States and in India, abandonment is usually a small and fairly constant percentage of the total acreage planted. For consistency, the statistics in Table 2 are for acreage harvested in both the United States and India.

cotton to other crops, but it may also be due to inertia on the part of farmers who are often creatures of custom, especially in backward areas.

Indian cotton acreage was much more stable during the period, 1929-1943, than American acreage. With the exception of one season (1942 when 19.2 million acres were harvested), cotton acreage in India ranged between 21 million and 26 million acres for this period. The Indian government's "Grow-More-Food Program" resulted in a sharp reduction of acreage in 1944 to 14.8 million acres. Acreage from 1944 through 1948 varied little (from 14.9 to 14.2 million acres). The last year of the period found India with an acreage under cotton of 14.6 million acres, the second lowest figure for the entire twenty-year period.⁷

The pattern of cotton acreage in the United States during the period, 1929-1948, showed a wider variation than in India and a somewhat different trend. Briefly, U. S. cotton acreage, first for economic reasons, later because of governmental controls, fell steadily from 43.2 million acres in 1929 to 26.8 million acres in 1934, a drop of 38 per cent in six seasons. Acreage rose again to a peak of 33.6 million acres in 1937 (when controls were not in effect) and declined sharply under controls to 24.2 million acres the following year. A slower decline after 1938 under the influence of controls and later the war led to an area under cotton of only 17.2 million acres in 1945, the low point for the entire twenty-year period and hardly more than three-eighths of the peak acreage of 1929. Since the war, however, U. S. cotton acreage in the absence of controls made, as contrasted with India, a rapid recovery, reaching 23.0 million acres in 1948.

There appears to be little significant correlation between changes in U. S. cotton acreage and changes in Indian cotton acreage. For the twenty-year period studied Indian cotton acreage changed in the same direction as U. S. acreage in 12 years and in the opposite direction in 7 years.⁸

Even more surprising is the relationship between U. S. production and Indian acreage. If a lag of one year is allowed for Indian acreage to respond, Indian acreage moved in the same direction as U. S. production 10 times, in the opposite direction 8 times.⁹

The only indication of a possible response of Indian cotton acreage to changes in U. S. production and acreage in the period may be found in the statistics for Indian acreage for the three seasons, 1935, 1936 and 1937. These three seasons saw Indian cotton acreage between 25.2 million acres and 26.0 million acres each year—from 10 to 20 per cent above the acreage for several years preceding and

⁷ During the period, 1939-1948, an additional factor reducing cotton acreage was the withdrawal of irrigated land in the Punjab and in Sind from production because of water logging and salinity. 65,000 to 85,000 acres a year are estimated to have been withdrawn during this period. Since this area is included in what is now Pakistan it bears directly on future cotton production in that new nation. H. W. Spielman, *Cotton Production in Pakistan*, p. 12.

⁸ The regression of changes in Indian acreage on changes in U. S. acreage is positive, and the coefficient of correlation is .09, which is not significant.

⁹ The regression of changes in Indian acreage on changes in U. S. production (allowing a lag of one year) is positive, and the coefficient of correlation is .05, which is not significant.

following this three-year period. If this increase in acreage for these three years can be traced to reductions in U. S. production and acreage, the time-lag for Indian response must be considerable. U. S. acreage had fallen sharply in every season from 1931 through 1934¹⁰ and actually was rising sharply in the only years, except 1929, that saw Indian acreage exceed 25 million acres.

In like manner as acreage, cotton production in the United States had been falling in the seasons 1931 through 1934. The 1934 production (9.6 million bales) was not much more than half of the 1931 production. Production, however, was rising during the same three-year period that Indian acreage was unusually large.¹¹

III

In the early years (1929-1933)¹² of the period under study, the volume of Indian cotton exports appeared to be very closely correlated with U. S. cotton exports (Table 3). In these years, although U. S. exports varied from a low of 49.8 per cent to a high of 66.4 per cent of total world exports of cotton, Indian and U. S. cotton exports taken together varied only from 72.6 per cent to 75.8 per cent of the world cotton export total. That is to say, while the swing in the volume of U. S. cotton exports was in the order of 16.6 per cent of the world total, the swing in the volume of U. S. and Indian exports taken together was only 3.2 per cent. Changes in the volume of U. S. exports in this five-year period were largely compensated for *vis-a-vis* the rest of the world by opposite changes in Indian cotton exports.

This correspondence ceased abruptly after 1933 although Indian exports showed some sympathy with U. S. cotton exports until 1937.¹³ Comparison of the two years 1931 and 1938 will illustrate the radical change that had occurred. In 1931, when U. S. cotton exports were 53.6 per cent of the world total, Indian exports were 19.0 per cent of the world total. In 1938, when U. S. exports were 37.5 per cent of the world total, Indian exports were only 17.4 per cent of this same figure. In other words, while U. S. cotton exports, as a percentage of world cotton exports, were falling 16.1 per cent, Indian cotton exports, as a percentage of the world figure, fell 1.8 per cent.

We may conclude, therefore, that we must look elsewhere than to India to discover the cotton exporting nation or nations which replaced the United States in the world cotton market after 1933.

¹⁰ It must be said, however, that the 1933 acreage only showed a reduction from 1932 because of the large "plowing under" program that operated in 1933. Without the "plowing under", 1933 acreage would have been approximately that of 1930 (42.5 million acres).

¹¹ Indian production also rose though not exactly as acreage since yields varied.

¹² Export statistics are for calendar years.

¹³ The volume of Indian exports changed in the opposite direction from changes in U. S. exports in every year during 1929-1937 but changed in the same direction from that date until 1941 when the war disrupted the exports of both countries. For the entire twenty-year period the regression of changes in Indian exports on changes in U. S. exports is negative, and the coefficient of correlation is .2, which is not significant.

IV

The supply (carry-over at beginning of season plus production during season) of Indian cotton in the period, 1929-1939, appeared to bear little significant relationship to the supply of American cotton (Table 4) or to the relative prices

TABLE 3
Cotton Exports from the United States and India,* 1929-1948
Quantity, Index Numbers, and Percentage of World Total

CALENDAR YEAR	QUANTITY		INDEX NUMBERS		WORLD TOTAL	
	U. S. 1,000 Bales†	India 1,000 Bales†	U. S.	India	U. S.	India
			(Base: 1929-1948)		per cent	per cent
1929	8,127	3,293	163.40	174.33	51.73	20.96
1930	7,159	3,408	143.94	180.42	49.76	23.69
1931	7,535	2,668	151.50	141.25	53.60	18.98
1932	9,817	1,342	197.38	71.05	66.43	9.08
1933	9,229	2,191	185.56	115.99	61.27	14.55
1934	6,336	2,868	127.39	151.83	45.87	20.76
1935	6,453	2,633	129.75	139.39	45.91	18.73
1936	5,912	3,338	118.87	176.72	40.43	22.83
1937	6,349	3,101	127.65	164.17	41.97	20.50
1938	4,787	2,225	96.25	117.79	37.47	17.42
1939	5,030	2,551	101.13	135.05	38.59	19.57
1940	4,008	1,891	80.59	100.11	42.40	20.01
1941	1,260	1,203	25.33	63.69	18.49	17.66
1942	1,114	252	22.40	13.34	25.70	5.81
1943	1,442	236	28.99	12.49	37.10	6.07
1944	1,042	267	20.95	14.14	28.78	7.38
1945‡	3,613	848	72.64	44.89	39.16	9.19
1946‡	3,544	834	71.26	44.15	36.90	8.68
1947‡	1,968	1,687	39.57	89.31	22.65	19.41
1948‡	4,748	943	95.46	49.92	43.97	8.73

* Includes Pakistan.

† 500 lbs. gross weight bales.

‡ Year beginning August 1. American in running bales.

Sources: Compiled or computed from, International Institute of Agriculture, *International Yearbook of Agricultural Statistics*; International Cotton Advisory Committee, *Cotton Quarterly Statistical Bulletin*.

(Table 5) of the two cottons. As might be expected, however, the supply of Indian cotton did fluctuate in greater sympathy with the supply of American cotton than did either acreage or production. During this period the Indian cotton supply moved in the opposite direction from the movement of the American cotton supply in every year but one (1931 to 1932), but the quantitative changes were quite disparate.

More striking is the lack of any very close correspondence between the relative

prices and the relative supplies of the two cottons. It is true that in the 1931 season, when the supply of Indian cotton was the smallest proportion of American cotton (22.3 per cent) of any year of the period, the price of Indian cotton stood at the highest percentage of the price of American (89.7 per cent), but the following year (1932) when the supply relationship was almost unchanged (Indian supply being 22.9 per cent of the American supply), the price of Indian cotton relative to the price of American fell ten percentage points to 79.3 per cent. This last percentage figure was slightly *below* that for 1935 when the Indian supply relative to American was almost double (40.0 per cent) that of 1932.¹⁴

TABLE 4
Supply of American and Indian Cotton, 1929-1939.*

YEAR BEGINNING AUGUST 1	I AMERICAN BALES† (000)	II INDIAN BALES† (000)	III	IV	V % INDIAN SUPPLY OF AMERICAN	VI % INDIAN- PRICE OF AMERICAN
			Index Numbers (Base: 1929-1939)			
			American‡	Indian§		
1929	19,233	7,955	84.38	107.40	41.36	70.23
1930	20,060	7,294	88.01	98.47	36.36	70.54
1931	25,853	5,770	113.42	77.90	22.32	89.65
1932	26,224	5,994	115.05	80.92	22.86	79.34
1933	24,521	7,368	107.58	99.47	30.05	74.98
1934	20,277	7,546	88.96	101.88	37.21	75.70
1935	19,536	7,816	85.71	105.52	40.01	79.85
1936	19,373	8,475	84.99	114.42	43.75	74.35
1937	24,647	8,151	108.13	110.04	33.07	77.20
1938	25,452	7,800	111.66	105.31	30.65	70.34
1939	25,555	7,310	112.11	98.69	28.60	78.64

* Commercial cotton only.

† American running bales. Indian in bales of 500 lbs. gross weight.

‡ Average annually 1929-1939, 22,794,000 bales.

§ Average annually 1929-1939, 7,407,000 bales.

Source: Compiled or computed from, U. S. Department of Agriculture, *Agricultural Statistics*.

In those years in which the Indian supply was large relative to the supply of American cotton this did not appear to be a particularly depressing factor in the relationship of the price of Indian cotton to the price of American. In 1936, when the supply of Indian cotton was 43.8 per cent of the supply of American cotton (the highest percentage of the period, 1929-1939), the price of Indian cotton was 74.4 per cent of the price of American. Two years later, when the supply of Indian cotton had fallen to 30.7 per cent of the supply of American cotton, the price of Indian cotton relative to American had also *fallen*—to 70.3 per cent.

¹⁴ Actually, this figure of 40.0 per cent is an understatement since some American cotton was being held off the market by the Commodity Credit Corporation.

V

The 11 years, 1929-1939, are the only ones of the period, 1929-1948, when the relative prices of Indian and American cotton (Table 5) can be said to have had real significance. Before the 1940 cotton year was over, the Liverpool market, long the chief international cotton market, was closed and war-time conditions generally disrupted international price relationships. In the post-war years, the terms under which the United States made loans and grants abroad often were such as to make selection of cotton import sources on the basis of relative prices a luxury most of the major cotton-importing nations could not afford. Where U. S. gifts and loans were not available, on the other hand, the dollar shortage

TABLE 5

Season Average Price per Pound of American and Indian Cotton in Liverpool, 1929-1939

YEAR BEGINNING AUGUST 1	I AMERICAN* U. S. CENTS PER POUND	II INDIAN† U. S. CENTS PER POUND	III	IV	V INDIAN PRICE AS PERCENTAGE OF AMERICAN
			Index Numbers (Base: 1929-1939)		
			American	Indian	
1929	18.44	12.95	151.33	139.63	70.23
1930	11.61	8.19	95.28	88.30	70.54
1931	7.54	6.76	61.88	72.89	89.65
1932	8.52	7.29	69.92	78.60	79.34
1933	12.47	9.35	102.34	100.81	74.98
1934	14.24	10.78	116.86	116.23	75.70
1935	13.50	10.78	110.79	116.23	79.85
1936	14.62	10.87	119.98	117.20	74.35
1937	10.31	7.96	84.61	85.82	77.20
1938	10.15	7.14	83.30	76.98	70.34
1939	12.64	9.94	103.73	107.17	78.64

* Middling Fair $\frac{3}{8}$ ".

† Oomra No. 1 Fine.

Source: Compiled or computed from, U. S. Department of Agriculture, *Agricultural Statistics*.

led to cotton purchases from non-dollar countries with little regard to relative prices.

American and Indian cotton in the first year of the period, 1929, stood higher than at any other time during the following 10 years. The price of American cotton (Middling Fair $\frac{3}{8}$ ") averaged 18.44 U. S. cents per pound in this year; the price of Indian cotton (Oomra No. 1 Fine) averaged 12.95 U. S. cents per pound. In this year the average price of Indian cotton was 70.23 per cent of the price of American. This was the lowest percentage reached during the eleven-year period under consideration. Lowest prices for both American and Indian cotton came in 1932—7.54 U. S. cents per pound for American, 6.76 U. S. cents per pound for Indian. This same year, 1932, found the Indian price the highest percentage (89.7 per cent) of the American price for the whole period. From

this we might draw the conclusion that the price of Indian cotton was more stable than that of American cotton¹⁵ and that the prices of each do not move together in a manner that would indicate complete substitutability between the two cottons.¹⁶

The supply and price relationships between American and Indian cotton described in this section and the immediately preceding one are, to say the least, disconcerting to a student of economics. The deviations from what might be expected theoretically may be explained in part by the physical dissimilarity of American and Indian cotton¹⁷ which makes the market for each somewhat distinct. In this situation changes in demand in the market for each might be in a different degree or even in a different direction for the uses to which the two cottons are put are somewhat different. But it is difficult to conceive of demand changes so rapid or so sharply different as to explain the supply-price relationships described above. Unfortunately, there has been, so far as this writer knows, little empirical study of this question.

VI

Yields vary from season to season even on the same plot of land due to the application of different amounts of labor or fertilizer, or to the growing of a different variety of cotton, or to weather conditions and insect infestations.¹⁸ Longer-run forces, especially deterioration of the quality of the soil and erosion, may also be at work.

In 1929 the yield of cotton in the United States was double that of India (164.2 pounds per acre and 79.9 pounds per acre). 1929 was not a year of abnormally low yield for the United States or of abnormally high yield for India.¹⁹ In 1948, the yield of American cotton was over three times that of Indian cotton (309 pounds per acre and 92.2 pounds per acre). This was, however, a year of abnormally high yield for the United States and abnormally low yield for India.²⁰

¹⁵ Index numbers may also be used to demonstrate this tendency. American cotton prices fell from an index number of 151.33 (Base: 1929-1939) in 1929 to 61.88 in 1932. The corresponding index numbers for Indian cotton prices were 139.63 in 1929 and 72.89 in 1932.

¹⁶ Actually, the spread between the prices of American and Indian cotton is understated by using annual averages. The author found, in a sample of monthly average prices, that in January, 1932, the Indian price was 97.0 per cent of the American price; in August, 1930, it was only 58.4 per cent. Prices on a daily basis would have shown an even wider spread.

¹⁷ Oomra No. 1 Fine cotton, the price of which is used in the discussion, is equivalent approximately to Low Middling $\frac{3}{4}$ " cotton in U. S. conception. $\frac{1}{4}$ " is, of course, a wide difference in cotton staple lengths.

¹⁸ Insect infestations are, of course, subject to control since applications of varying quantities of insecticides may be made if cost conditions warrant it and the farmer is possessed of the necessary capital.

¹⁹ In the ten seasons immediately preceding 1929, U. S. yields had been below the 1929 yield in five seasons. In the ten seasons following 1929, Indian yields were above the 1929 yield in eight seasons.

²⁰ In the U. S. the high yield in this year appears to have been due to generally excellent weather conditions, low insect infestation, and intensive use of fertilizer because of the favorable fertilizer cost-cotton price relationship. In India much of the reduction from normal yield can be attributed to the disruption of the cotton economy (especially in Pakistan) arising from the religious troubles and migrations accompanying partition.

The change in U. S. cotton yields relative to Indian yields over the twenty-year period, 1929-1948, is from approximately twice the Indian yield to about two and one-half times the Indian yield.

This long-run increase in U. S yields relative to those in India arises from several conditions the chief among which are: shifting of cotton production in the United States from low-yielding land in the southeast to high-yielding, irrigated land in the southwest and far west; increased use of fertilizer and insecticides; development and propagation of higher-yielding varieties of cotton; improvement of cultural practices. The last two factors, above, were also oper-

TABLE 6
Yield of Cotton per Harvested Acre, United States and India, 1929-1948

YEAR BEGINNING AUGUST 1	I UNITED STATES	II INDIA*
	lbs/Acre	lbs/Acre
1929	164.2	79.9
1930	157.1	86.3
1931	211.5	67.0
1932	173.5	81.7
1933	212.7	84.3
1934	171.6	79.7
1935	185.1	89.6
1936	199.4	98.9
1937	269.9	88.9
1938	235.8	86.0
1939	237.9	91.9
1940	252.5	106.2
1941	231.9	101.5
1942	272.4	97.9
1943	254.0	99.8
1944	298.9	118.9
1945	253.6	115.0
1946	235.3	114.4
1947	266.3	114.6
1948	309.0	92.2

* Includes Pakistan.

Source: Compiled or computed from, U. S. Department of Agriculture, *Agricultural Statistics*; Tables 1 and 2 of this article.

Column II. Computed from Tables 1 and 2.

ating in India²¹ but not to a sufficient degree to keep Indian yields from falling relative to U. S. yields.

Actually, yields in both countries have been increasing absolutely, but it is not known how much of this increase represents actual improvement of yields on the same land and how much represents merely the withdrawal of marginal land from cotton production as total cotton acreage in both countries has fallen. The proportionate reduction in cotton acreage between 1929 and 1948, however, has been only slightly greater in the United States than in India.

²¹ R. P. Dunn, Jr., *op. cit.*, pp. 100-108, 112-113.

VII

India has long held the dubious honor of being one of the most overpopulated of all the countries of the world. A brief glance at Indian population statistics will indicate roughly the magnitude of the problem:

YEAR	POPULATION	ACTUAL INCREASE
	(millions)	(millions)
1921 ²²	306	—
1931 ²²	338	32
1941 ²²	389	51
1947 ²²	405 ²⁴	16

From 1929 to 1948, the population of India increased by about 80,000,000 persons. Thus within 20 years the Indian economy has been called upon to feed an *additional* number of persons equal to more than one-half the present population of the United States. This is not the place to tell the tragic story of what this population pressure means in terms of poverty, malnutrition, disease, shortened life-expectancy, and famine.²⁵

Indeed, in the kind of world envisaged by classical economic theory, India's population problem would be of only indirect importance in any discussion of her potentialities for supplying cotton to the markets of the world. For whether India grew cotton or a food crop on a particular plot of land would be determined solely by whether the land would produce more food directly by planting it to food crops or indirectly by growing cotton and exchanging it in the world markets for food. If the population of India grew, this increase might be counter-balanced by a decline in some other nation or an increase in food production abroad. Only if the world population grew faster than world food production (neglecting possible changes in the demand for cotton because of development of substitutes, altered tastes, etc.) might we expect the value of food crops relative to cotton to increase thereby causing a shift of marginal land from cotton to food crops.²⁶ But to examine the problem of Indian population independently would not, in theory, suffice.

We need not elaborate the obvious inaccuracies in the theoretical picture as a representation of the real world. Reasons, both endogenous and exogenous, exist for examining the Indian population problem and its relation to Indian cotton exports separately from the situation that may occur in the whole world.

The growth of the rural population of India has brought about a steady reduction in the size of farm holdings below what would be considered an efficient unit. Thus, continued growth of the Indian rural population will, in the absence

²² Census figure. United Nations, *Demographic Yearbook*, 1948, p. 92.

²³ Estimate. *Ibid.*, p. 101.

²⁴ Includes Pakistan.

²⁵ See, for example, Radhakamal Mukerjee, *Food Planning for Four Hundred Millions*.

²⁶ These remarks are based on the not unreasonable assumption that the demand for food increases as population increases.

of governmental prohibition, result in smaller and smaller individual holdings and consequent reduction in yields of all crops including cotton.²⁷ Unless new lands are opened up this alone would mean a declining long-run trend in Indian cotton production even if there were no shifting of land use from cotton to food production. This problem of the uneconomic size of holdings is further aggravated by the fragmentation of holdings that has occurred in the past and will continue to take place in the future if the rural population increases. A holding on the average in India is probably parcelled into 8 to 10 strips.²⁸ It should be emphasized that these problems (of size and fragmentation) will become more serious as the *absolute* size of the rural population increases even though the *proportion* of the rural population should fall as industrialization increases.²⁹

In the partition of India into the Indian Union and Pakistan on August 15, 1947, the Indian Union received a disproportionate share of the population problem especially in comparison with western Pakistan.³⁰ Pakistan, however, has also found it necessary to import food. This represents a particularly critical problem for Pakistan since it contains almost none of pre-partition India's industrial production capacity.³¹ On the other hand, Pakistan is possessed of a "favorable" balance-of-trade including that *rara avis* of the post-war world—a surplus in her balance-of-trade with the United States.

Thus, while the Pakistan government is anxious to press industrialization, it has the means of importing capital goods and of servicing foreign loans (including dollar loans) at least for the present.³² There will, consequently, not be anything like the pressure in Pakistan that there is in the Indian Union to shift land from cotton to food if the two populations increase at the same rate.³³ This is of par-

²⁷ "Even on a low estimate, 60-70 per cent of cultivators have uneconomic holdings." M. Nanavati, "Problems of Indian Agriculture," in *Proceedings of the Sixth International Conference of Agricultural Economists*, p. 266. Farm holdings become so small that they will not support work-animals, fertilizer purchases, or proper farm implements. Yields, consequently, may fall even though human labor per acre is increased.

²⁸ *Ibid.*, p. 274.

²⁹ Actually, despite efforts to foster industrialization in India, the proportion of the rural population to the total population has been increasing. Between 1880 and 1940 the proportion of the population dependent on agriculture increased from 56 per cent to 75 per cent. This increase is largely due to two factors—a more rapid increase in the total population than the increase in industrial job opportunities and the decline of handicraft industries in the face of competition from the western world and from India's own mills and factories. *Ibid.*, p. 267.

³⁰ The Indian Union has about two-thirds of a depleted non-irrigated acre per capita while western Pakistan has almost that area per capita of non-irrigated land plus about two-thirds of an acre per capita of irrigated land. R. P. Dunn, Jr., *op. cit.*, p. 7.

³¹ Less than 1 per cent of the population of Pakistan is engaged in organized industries with about 4 per cent in crafts and cottage industries. *Ibid.*, p. 7.

³² Pakistan's exports are principally raw materials (jute, cotton, wool, and hides); her imports are principally manufactured goods. A world depression, because of the greater flexibility of world prices for her exports compared to her imports, would wipe out her present advantageous (for industrialization) situation.

³³ Actually, the population of the Indian Union is increasing somewhat faster than that of Pakistan. Between 1937 and 1947, the population of the area which is now the Indian Union increased 10 per cent, that of Pakistan, 8 per cent. Food and Agriculture Organization, *Yearbook of Food and Agricultural Statistics, 1948*, I, pp. 208-209.

ticular significance for this study since the varieties of cotton grown in Pakistan are much more nearly substitutable for U. S. cotton than those varieties which make up the bulk of the crop in the Indian Union.

When we turn to the outside world it becomes immediately apparent that the success with which India can advantageously exchange cotton for food depends as much upon whether the world returns to relatively free multi-lateral trade as it does upon the relative international prices of cotton and food. Even if the present world trend toward bilateralism can be stopped,³⁴ India will be faced with the specific problem of finding a country that will accept her cotton in exchange for food. But the world's leading importers of cotton (United Kingdom, Japan and western Europe) are themselves importers of food. It is not surprising that this situation has led the government of the Indian Union to press for greater domestic food production.³⁵ In Pakistan the problem has not yet appeared so critical, but any drive to industrialize must exert pressure to stop the importation of food by growing more food crops domestically.

If the population of the Indian Union continues to grow, the outlook for the future seems to hold these alternatives—less cotton production or famine. Even if the first alternative is chosen the second may not be avoidable.

In Pakistan the possibility exists that industrialization may be accomplished rapidly enough by use of its "favorable" balance-of-trade and by encouragement of foreign investment to obviate the necessity of reducing cotton production. Too, irrigation and reclamation may make considerable land available for cultivation and increase yields of present farms in some areas.³⁶ Even so, the difficulties to be overcome in Pakistan before significant progress in relieving population pressure is made cast a large shadow of doubt on whether Pakistan will be much more successful than the Indian Union in staving off a shift in land use from cotton to food crops.

VIII

Although the rate of growth slackened,³⁷ the Indian textile industry³⁸ grew steadily during the period, 1929–1948. The number of mills and the number of

³⁴ Indications are that it is still increasing especially in food and other agricultural products. The United Nations Food and Agriculture Organization estimates that about 80 per cent of the world's trade in these products is now covered by bilateral agreements. Food and Agriculture Organization, *The State of Food and Agriculture, 1949*, p. 15.

³⁵ *Ibid.*, p. 41. The plans are couched in terms of increasing production of cereals without decreasing production of other crops. It is doubtful that this can be accomplished, at least in the near future, because the additional land which would be required is simply not available until irrigation and reclamation projects are carried through. Improvement of yields through better cultural practices is to contribute 30 per cent of the planned additional production of food crops. This last cannot be done over-night either. R. P. Dunn, Jr., *op. cit.*, p. 75.

³⁶ *Ibid.*, p. 23–24.

³⁷ Installed spindleage in 1929 was 140 per cent of that of 1911 while installed spindleage in 1947 was 116 per cent of that of 1929.

³⁸ Except when specifically noted otherwise, the term "textile industry" refers to mill manufacture only (i.e., does not include hand spinning or weaving).

spindles and looms installed both increased. Mill consumption of cotton, though more irregular, showed an upward trend until 1944 when just over 4.0 million bales were consumed (Table 7). Consumption dropped sharply to about 3.2 million bales in 1946 but has since regained about one-third of the lost ground. Between 1929 and 1944, the quantity of cotton consumed by Indian mills almost doubled.

TABLE 7

Indian Textile Industry, 1929-1948, Number of Mills, Spindles and Looms Installed, and Cotton Consumed*

YEAR BEGINNING JULY 1	NUMBER OF MILLS	THOUSAND SPINDLES INSTALLED	THOUSAND LOOMS INSTALLED	THOUSAND BALES† COTTON ALL GROWTH* CONSUMED	THOUSAND BALES INDIAN COTTON CONSUMED‡
1929	348	9,125	179	2,111	2,000
1930	339	9,312	182	2,159	1,882
1931	339	9,506	186	2,387	1,945
1932	344	9,581	189	2,327	1,989
1933	352	9,613	194	2,217	1,930
1934	365	9,685	199	2,561	2,191
1935	379	9,857	200	2,609	2,248
1936	370	9,731	198	2,581	2,187
1937	380	10,020	200	3,004	2,470
1938	389	10,059	202	3,125	2,624
1939	388	10,006	200	3,018	2,479
1940	390	9,961	199	3,486	2,919
1941	396	10,026	200	3,888	
1942	401	10,131	201	4,010	
1943	407	10,222	202	3,973	
1944	417	10,238	202	4,026	
1945	421	10,305	203	3,731	
1946†	423	10,354	203	3,178	
1947‡	422	10,433	202	3,426§	
1948‡	412§	N.A.	N.A.	3,360§	

* Includes Pakistan, Indian Union, and States. Includes Burma until 1936.

† Bales of 500 lbs. gross weight.

‡ Year Beginning August 1.

§ Indian Union only. 50,000 to 75,000 bales additional consumed by mills in Pakistan.

N.A. Not Available.

Sources: Compiled or computed from *The Indian and Pakistan Yearbook, 1948*, p. 852; R. P. Dunn, Jr., *Cotton in Pakistan and the Indian Union*, p. 126; New York Cotton Exchange, *Yearbook*.

To the extent that the textiles produced from this cotton replaced imported textiles this meant merely a change in the location of part of the world market for raw cotton, but no change in the total demand. Even in this situation American cotton would find its competitive position relative to Indian cotton weakened through the change in the cost-of-transport factor. If cotton textiles for Indian use are made in Bombay instead of Birmingham, it is going to be more difficult for U. S. cotton to compete for this market with Indian cotton. And, of course,

there are other less tangible factors which tend to favor the use of a domestic raw material rather than an imported one.

Because India does not produce enough of the particular types of cotton used in her mills she has been for many years an importer as well as an exporter of raw cotton. The division of India into the Indian Union (containing almost all the pre-partition textile industry) and Pakistan (containing a large part of the cotton production formerly used by the Indian mills), emphasizes this since what had previously been an internal movement of about 1,000,000 bales of cotton annually now becomes an export from Pakistan to the Indian Union. It appears unlikely that high tariffs or quotas of raw cotton lie in the foreseeable future since the Indian Union growers are unable to supply all mill needs in either quality or quantity. The Indian Union dollar shortage, however, serves to restrict the possibility of large U. S. exports of cotton to India especially in view of the Union's more urgent need to import food and industrial machinery from the United States.³⁹

The Indian government provided tariff protection for the domestic textile industry until March 31, 1947, when protection was officially abolished and only "revenue" tariffs allowed.⁴⁰ The present duties, however, range from 15 per cent to 21 per cent ad valorem for British textiles and from 50 per cent to 60 per cent ad valorem for non-British textiles with specific duties on grey piece-goods to give additional revenue if prices should fall far enough to bring these specific duties into effect.⁴¹ The use of the term "revenue" to describe tariffs at these rate levels appears anomalous unless the Indian Union government actually will reduce them if the national budget will allow.

Per capita consumption of cotton textiles in India is one of the lowest in the world despite the fact that the climate over much of the area and the tastes of the people favor cotton textiles. Low per capita income, however, effectively reduces consumption. Per capita availability of cotton textiles has apparently increased in the Indian Union over the pre-war figure, but largely at the expense of Pakistan.⁴²

IX

It is impossible to measure quantitatively the effect on Indian exports of raw cotton of special trade arrangements with other countries since we cannot perfectly construct a picture of what trade movements would have occurred in the absence of these arrangements. Two of these special arrangements are discussed here.

The preferential tariffs among the British Empire and Dominions served, in the case of India, to favor the import of British-made goods (including cotton textiles) over those of other manufacture after 1931. This circumstance undoubtedly increased the supply of Indian foreign exchange available to British textile

³⁹ R. P. Dunn, Jr., *op. cit.*, p. 128.

⁴⁰ *The Indian and Pakistan Yearbook*, 1948, p. 851.

⁴¹ R. P. Dunn, Jr., *op. cit.*, pp. 130-131.

⁴² *Ibid.*, p. 133, from the Indian Mill-owners Association.

manufacturers during a long period in which there existed a chronic shortage of dollar exchange—indicated by a total inflow of gold into the United States between 1931 and 1939 of some \$10 billion.

Given these conditions it is to be expected that British textile manufacturers used proportionally more Indian cotton after 1931 than they would have used in the absence of the preferential tariffs.

In January of 1934, Japan entered into a Raw Cotton-Piece Goods Agreement with India which, "scaled India's imports of Japanese cotton piece-goods in accordance with Japan's purchases of Indian cotton."⁴³ Indian cotton, which had represented 21.4 per cent of Japanese imports of raw cotton in 1932 (before the agreement), constituted 43.8 per cent of Japanese cotton imports in 1936 (following the agreement).⁴⁴

Quantities involved in the Protocol were as follows: Minimum—Japan to take 1,000,000 bales (probably 400 pounds gross weight bales) in exchange for the right to export 325,000,000 yards of cotton piece-goods to India; maximum—1,500,000 bales in exchange for the right to export 400,000,000 yards of textiles to India. The Protocol was renewed in 1937 for three years, but due to the separation of Burma from India in that year the quantities of piece-goods to be exported to India were reduced to 283,000,000 yards at a minimum with a maximum of 358,000,000 yards. Apparently raw cotton quantities remained unchanged.⁴⁵

Although the effect of this agreement cannot be exactly evaluated, there seems little doubt that it served to reduce the proportion of Japanese cotton imports drawn from the United States.

X

The British Dominion of India was partitioned on August 15, 1947, into two independent Dominions, the Indian Union and Pakistan. The various Princely States, which had been semi-independent under British rule, were allowed to choose affiliation with either of the two new nations or independence from both.

The most important change in the cotton situation on the Indian sub-continent brought about by partition is that the Indian Union now contains almost all of pre-partition India's textile industry. The present textile industry of Pakistan consumes about 65,000 bales of cotton annually while the mills of the Indian Union consume about 3,500,000 bales a year. Pakistan, on the other hand, includes cotton-growing areas which produced around 1,500,000 bales annually before the war and from 850,000 to 1,000,000 bales a year since that time. Pakistan has, therefore, an exportable surplus at the present time of between 650,000 and 800,000 bales a year⁴⁶ even if production does not return to pre-war levels.

⁴³ U. S. Department of State, Division of Research for the Far East, *The Japanese Textile Industry, 1928-36*, OIR Report No. 4529, p. 12.

⁴⁴ *Ibid.*, p. 12.

⁴⁵ *The Indian and Pakistan Yearbook, 1948*, p. 851.

⁴⁶ It is estimated that 125 thousand bales are consumed annually in the hand spinning and weaving industries of Pakistan.

An agreement between the two countries for the year September, 1948, to August, 1949, was reached under which Pakistan would import 300,000 bales of cotton cloth and 100,000 bales of cotton yarn in exchange for equivalent exports of raw cotton to India. Actually, less than 10 per cent of the scheduled amounts were traded. One investigator reports that Pakistan may have imported more expensive textiles from other countries in order to avoid purchasing from the Indian Union.⁴⁷

If the intense nationalism of the days immediately following partition abates, the two new nations may face the economic facts of life and provide for substantially free trade between the two in raw cotton and cotton textiles. If they do not, Pakistan's large cotton export surplus will be thrown on the world market while the Indian Union will enter that market to buy cotton on a much greater scale than hitherto has been the case. If the effect of this on U. S. cotton exports should be exactly neutral it would be purely coincidental. There is no reason for believing *a priori* that this would be the case.

XI

The future of Indian cotton competition with American cotton in foreign markets poses three questions. Is the very sharp reduction in Indian cotton acreage and production since 1943 a temporary change which might be reversed at any time? Is it a semi-permanent equilibrium which, although accomplished in the first place by government action, will now continue even without government controls? Is there any likelihood that acreage and production will fall even further?

The experience of the twenty-year period, 1929-1948, indicates that Indian cotton acreage and to a less extent production is relatively stable and is significantly responsive only to very powerful influences (e.g. the war and the Grow-More-Food Program). Even strong economic forces such as the sharp reduction in cotton production by the United States and an artificially high price for American cotton did not greatly alter the pattern of land use in India. It appears reasonable to conclude that cotton acreage in India will not deviate significantly in the next few years from its present 14,000,000 to 15,000,000 acre level. Production, moreover, will probably also remain in the neighborhood of 3,500,000 bales.

The possibility exists, of course, of increasing production without increasing acreage by increasing yields. To increase yields will require development of higher-yielding varieties, increasing the use of fertilizer, improving cultural practices, irrigating land now being used for cotton but under adverse climatic conditions, reversing the trend toward smaller farm units, and re-integrating fragmented holdings. Of these, only the development of higher-yielding varieties and improvement of cultural practices seem to hold real promise. Although large irrigation projects are planned, their fulfillment will depend upon obtaining foreign loans and will require diversion of funds from industrialization programs. The low per capita income in India prevents any substantial increase in domestic

⁴⁷ R. P. Dunn, Jr., *op. cit.*, p. 127.

savings. Any increase in investment without a corresponding increase in either domestic savings or foreign loans will not only mean inflation in India, but starvation for many individuals.

Those yield-increasing programs which seem plausible for India in the future will result in a net increase in yield only if they can more than counteract the yield-decreasing factors steadily at work there. These latter include the reduction in size and fragmentation of holdings and the water-logging and salinity conditions which build up in the irrigated areas. We conclude that no significant increase in yield is likely.

The possibility of bringing new acreage into cultivation for cotton or food crops (if the latter, pressure for a shift from cotton to food in the older farming areas would be eased) is almost entirely a matter of constructing irrigation or drainage facilities and meets with the same difficulty mentioned above in connection with the use of irrigation to increase yields. Some irrigation projects are, nevertheless, under way and others are planned. But whether these projects can be brought to completion in time to provide food for the natural increase in population is doubtful much less provide additional land for cotton production. Of course, if cotton can be advantageously traded for food, bilaterally or in a world market, some of this new land may be used for cotton. There is more likelihood of this development in Pakistan than in the Indian Union.

Over all hangs the population problem and the specter of famine. If the two governments assume the responsibility of keeping their peoples from starving to death⁴⁸ and find themselves in a world in which they cannot trade cotton or cotton products advantageously for food, cotton acreage must surely diminish.

Study of the competition between American and Indian cottons in foreign markets in the period, 1929-1948, leads to the conclusion that neither Indian cotton acreage, production, or exports reacted strongly to changes in these factors in the U. S. cotton situation. Except for the shift from shorter to longer-stapled growths which was stimulated by the U. S. cotton program, we may conclude that acreage restriction programs and price supports for American cotton did not result in counter-balancing increases in the supply of Indian cotton proportional to India's importance in the world cotton market. As a matter of fact, with the exception of the 1935-37 period, there was no significant reaction in India to the U. S. program much less a proportional one.

This conclusion is not in accord with what might theoretically have been expected or with popular notions in the United States at the time. India was usually included in general statements that U. S. reductions in cotton production would mean loss of foreign markets to competing cotton producers. Although this statement may be generally true, India should be struck from the list of competing nations which did replace the United States in foreign markets. Nor does it appear likely that India will be added to this list in the foreseeable future.

⁴⁸ Both the Indian Union and Pakistan may present the paradox that the more effective the central governments are and the more responsive they are to the populace, the less beneficial they are to the nation as a whole. This because an overall lowering of the per capita calorie intake may be effected instead of localized famine. Moral conscience and economic conditions in India appear incompatible.

SELLING CALIFORNIA COTTON, 1944-1948

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World War II was the occasion of a violent adjustment in the marketing of California cotton. During the 1930's this crop was almost entirely exported, particularly to the Orient. The abrupt loss of those markets forced merchants to find an outlet in the United States. There was no time for gradual adjustment.

"Selling California Cotton" is a case study of the way in which an industry invades a new market, of the strategy and tactics resorted to, and of the success which attended them. But more important, this study points up the conditions, in an economy characterized by relatively free competition, which require group action for the successful promotion of an undifferentiated product.

I

California cotton is not grown in the variety of grades and staples which is characteristic of the United States rain-grown crop taken as a whole.¹ In color, practically all of the fiber is white and extra white. For instance, of the 1949-1950 crop ginned up to December 12, only 4.4 per cent was colored in any way.² In grade it is now typical that about seven-eighths of the crop is classified as strict middling, middling, and strict low middling. In staple length, the same proportion of the product measures between $1\frac{1}{2}$ inches and $1\frac{3}{4}$ inches. These, then, are the pertinent grades and staples which compete with comparable qualities of rain-grown cotton in the central cash markets.

Unless there is a specific reason for contrary practice, it is customary for the cotton trade to use the average price in ten spot markets³ as its point of reference in the consideration of price levels. Some of these markets serve a local trade, and consequently quote prices over the range of grades and staples produced in the surrounding territory. For instance, Dallas, Houston, and Galveston quote regularly on $\frac{1}{8}$ inch cotton, all ten markets quote on staples running from $\frac{7}{8}$ inches to $1\frac{1}{8}$ inches, but only Memphis in this group has a market for fibers in excess of the latter figure. Since the latter market reports all of the average prices paid for the qualities which are characteristic of California growths, the writer has chosen to compare the prices received for the western cotton with the average

¹ It may be desirable, at this point, to remind the reader that the cotton classification system rests upon three broad factors, viz. color (extra white, white, spotted, tinged, yellow stained, and gray); grade (good middling and better, strict middling, middling, strict low middling, low middling, strict good ordinary, and good ordinary); and staple (measured in thirty seconds of an inch, the American crop usually ranging from $1\frac{1}{8}$ " to $1\frac{3}{4}$ ").

² Unless otherwise stated, all quality data on the California crop are taken from *Cotton Quality Report for Ginnings Through December 12, 1949* (Bakersfield, California: Production and Marketing Administration).

³ Augusta, Charleston, Dallas, Galveston, Houston, Little Rock, Memphis, Montgomery, New Orleans, and Savannah.

prices reportedly paid by buyers in this one central cash market. The prices received in Memphis are ordinarily higher than the average for the ten markets.⁴ Thus it is reasonable to assume that in view of its geographical location with respect to the eastern markets California cotton is either largely sold in Memphis, or sold with respect to the values prevailing in that center. Direct comparability was achieved by adjusting upward the average price paid for the California product by the total cost of delivering this cotton in Memphis.⁵

The basic data relating to the undervaluation of the California crop in United States markets during the last five years are summarized in Table I. The market position of this cotton deteriorated rapidly during the years 1944-1947. In the former year, the last in which wartime controls were extensively applied to producers of this crop,⁶ the output was sold on balance at a premium. During the succeeding three years every grade and staple was sold at an increasing discount. For the crop year 1948-1949 the data reflect the end, for the time being at least, of undervaluation.

The data in Table II furnish a basis for estimating the extent of the dollar gains and losses based upon premiums and discounts realized by California growers in the sale of their cotton during the last five years. This calculation may be made on two bases, the first of which relates to the classification of the crop by grades. Between 1944 and 1948 the proportion of the output which was classed as strict middling, middling, and strict low middling increased from 47 per cent to nearly 82 per cent. Using the discounts appearing in Table I, the realized discount on this portion of the crop rose from \$451,000 for the 1945 crop to \$2,326,000 in 1947. A premium of \$733,000 was earned in 1948. Assuming that the market prices for the other grades behaved in the same manner, growers sold their crops at a total discount of \$4,847,000 during the crop years 1945-1947 and received total premiums amounting to \$1,110,000 for the crops grown in 1944 and 1948.

The amount of the discount and premiums may be also estimated from the data relating to the staple classification of the crops. The proportion of the total crop measuring between $1\frac{1}{2}$ inches and $1\frac{3}{4}$ inches varied between 74 per cent in 1944 and 94 per cent in 1947. In three of the five years the ratios clustered about 85 per cent. The estimated discount sustained on this part of the crop rose from \$505,000 in 1945 to \$2,492,000 in 1947. The estimated premium received for the above staple lengths of the 1948 crops was \$1,168,000. Assuming as we did above that the remaining staple lengths were sold at the same disadvantage-

⁴ According to unpublished data kindly furnished the writer by Dr. Scott Hathorn, Jr., University of Arizona, the average differential in favor of Memphis for the years 1943-1947 for the $1\frac{1}{2}$ inch staple was 9 points for strict middling and 20 points for strict low middling: A "point" is one hundredth of a cent per pound.

⁵ All price comparisons were made on the basis of data available in *Cotton Price Statistics* (Washington: Department of Agriculture, August 1944-September 1949). To the California price was uniformly added 1.75¢ per pound for the years 1944-1947 and 1.89¢ for the year 1948 to cover all costs of handling and freight from gin to central cash market. These figures were reported to the writer by two of the largest shippers of California cotton, and include loading, receiving, one month storage, compression, net freight, and insurance.

⁶ See the writer's article, "Planning in Cotton," *Journal of Farm Economics*, Feb. 1950.

ous or advantageous terms, the estimated discount sustained on the crops marketed during the period 1945-1947 amounted to over \$4,000,000, and compares with an estimated premium received for the 1944 and 1948 crops of \$1,586,000.

The amount of the discount and premium is probably a conservative estimate because the spot prices in Memphis represent the average daily prices reportedly received by merchants and consequently include California cotton. Hence, the

TABLE I
Average Annual Undervaluation of California Cotton in Points, 1944-1948

CROP YEAR BEGINNING AUGUST 1	STRICT MIDDLING	MIDDLING	STRICT LOW MIDDLING
1$\frac{1}{2}$ Inch Staple			
1948	-4	-35	-57
1947	60	52	39
1946	50	33	25
1945	43	47	46
1944	-10	-17	4
1$\frac{1}{8}$ Inch Staple			
1948	9	-41	-50
1947	81	64	62
1946	58	33	27
1945	19	29	37
1944	-58	-27	-1
1$\frac{3}{4}$ Inch Staple			
1948	3	-37	-44
1947	116	102	83
1946	69	46	33
1945	50	38	36
1944	5	19	-15

Source: Calculated by the writer from data reported in *Cotton Price Statistics* (Washington: Department of Agriculture, 1944-1948).

An allowance of 189 points was made to cover the cost of laying down California cotton in the Memphis spot market for the season 1948-1949, and an allowance of 175 points for all earlier years.

Points are hundredths of a cent per pound. Negative data measure premiums received.

average price is lower by the extent to which the western cotton influenced the market. (Escape into government loan was not a typical recourse.) In 1947, for instance, California produced 13 per cent of all domestic cotton in the staple lengths from 1 $\frac{1}{2}$ to 1 $\frac{3}{4}$ inches. This may well be considered an insignificant element in the determination of central cash market prices for these qualities in view of the volume of cotton in the carryover. However, 1947 was one of our better years in this respect, and the carryover of these staples on August 1 amounted to only 19 per cent of the domestic production of the same classification

TABLE II

Estimated Realized Premium and Discount on the Sale of California Cotton, 1944-1948

	1944	1945	1946	1947	1948	TOTAL
Production (1000 bales) ^a						
Grade Basis:						
Strict Middling.....	73.1	57.1	186.6	364.6	404.0	
Middling.....	34.5	116.0	127.1	186.1	304.7	
Strict Low Middling.....	42.7	62.6	31.3	26.0	85.7	
Percent of total crop.....	47.1	67.7	76.0	75.3	81.6	
Staple Basis:						
1½ inch.....	36.7	69.3	85.8	181.5	236.6	
1⅞ inch.....	106.3	178.2	232.0	412.1	473.1	
1½ inch.....	93.8	48.4	66.7	123.3	115.9	
Percent of total crop.....	74.2	85.0	84.7	93.6	84.8	
Discount in Dollars per bale ^b						
Grade Basis:						
Strict Middling.....	1.05°	1.85	2.95	4.30	.15	
Middling.....	.40°	1.90	1.85	3.65	1.90°	
Strict Low Middling.....	.20°	2.00	1.40	3.05	2.50°	
Staple Basis:						
1½ inch.....	.40°	2.25	1.80	2.50	1.60°	
1⅞ inch.....	1.45°	1.40	1.95	3.45	1.35°	
1½ inch.....	.15	2.05	2.45	5.00	1.30°	
Estimated Discount (\$1,000)						
Grade Basis:						
Strict Middling.....	76.8°	105.6	550.5	1567.8	60.6	2207.7
Middling.....	13.8°	220.4	235.1	679.3	578.9°	542.1
Strict Low Middling.....	8.5°	125.2	43.8	79.3	214.3°	25.5
	99.1°	451.2	829.4	2326.4	732.6°	2775.3
Staple Basis:						
1½ inch.....	14.7°	155.9	154.4	453.8	378.6°	370.8
1⅞ inch.....	154.2°	249.5	452.4	1421.7	638.7°	1330.7
1½ inch.....	14.1	99.2	163.4	616.5	150.7°	742.5
	154.8°	504.6	770.2	2492.0	1168.0°	2444.0

^a Production data were adapted from *Cotton Quality Report for Ginnings* (Bakersfield, California: Production and Marketing Administration, Department of Agriculture, 1945-1949).

Data were in running bales, or as delivered from the gin, and consequently the individual bale weight varies considerably. For the purpose of this calculation the standard practice of assuming an average gross bale weight of 500 pounds was adopted.

^b Calculated by multiplying the bale weight by the unweighted average of the data appearing in Table I for respective grade, staple, and year.

° Premium.

during the 1947-1948 crop year.⁷ In the opinion of the writer the marginal influence of these two factors on the pertinent spot cotton prices would definitely tend to depress the latter and thus result in a significant understatement of both discounts and premiums for irrigated cotton.

II

In order to understand the basic reasons for the poor performance of California cotton in the domestic market it is necessary to know something of the history of cotton culture in that state.⁸ The United States Department of Agriculture began experimental plantings of cotton in the Southwest in 1902. Six years later an Egyptian variety was successfully grown in the Coachella Valley, California. Commercial plantings rapidly spread throughout the southern part of the state: a start was made in the Imperial Valley in 1909, the Coachella Valley in 1910, and the Yuma Valley in 1911. This cotton was not all Egyptian by any means. Two other varieties, Rowden and Mebane, were imported from Texas. Interest in the cultivation of this fiber was quite desultory until the high cotton prices during the years following 1917 attracted attention to the crop. During these years the varieties which achieved prominence were:

1. Mebane, a short staple Texas strain. The fields lacked uniformity, largely due to the difficulty of securing seed.

2. Egyptian, a long staple variety successfully grown by the Department of Agriculture in 1908.

3. Acala, an upland variety imported from Acala, State of Chiapas, Mexico in 1906. During the next five years it was acclimatized in Texas by the Department of Agriculture and a strain was first planted in the San Joaquin Valley in 1917.

4. Durango, a long staple upland variety introduced from Mexico. An excellent cotton in terms of fiber length, quality, and yield. The bolls were somewhat smaller than for Acala and the percentage of lint was lower.

5. Egyptian Pima, an upland variety first planted in the San Joaquin Valley in 1917. The results were uniformly good, the price for this variety was high, and consequently the Department of Agriculture recommended Pima for plantings. Of 3000 acres of cotton in the San Joaquin Valley in 1918 most were in Pima. From this high point the variety gradually gave way to Acala.

By the year 1919 representatives of the Department of Agriculture foresaw the possibility of growing a single variety of cotton in California and to this end sent ten bushels of Acala seed from its experimental acreage in northern Texas to the San Joaquin Valley. Planting results were especially favorable and the

⁷ *United States Quality Report for Ginnings 1947 Crop* (Washington: Department of Agriculture, 1948). The percentages were calculated by the writer.

⁸ The material for the succeeding sketch stems from two sources. For the early history to 1925 see *Community Production of Acala Cotton in the Coachella Valley of California* (Washington: Department of Agriculture Bulletin #1467). The material for the later years was obtained by correspondence with the United States Cotton Field Station, Shafter, California, February 9, 1950, and in conversations with cotton merchants and association men in Southern California.

seed therefrom was widely distributed not only in the San Joaquin Valley but also in the Coachella Valley. Indeed, so promising were the quality and yield that farmers, with the encouragement of the Acala Cotton Growers Association, gradually turned to this variety in succeeding years. By 1924, the last year in which multiple varieties were raised in nine of the ten producing counties, only small acreages of Durango, Mebane, and Pima were planted.

In general, the years 1908-1924 may be looked upon as a period in the history of fiber development during which the commercial possibilities not only of cotton, but of particular varieties and strains of cotton, were thoroughly tested. All of the leading varieties had their advocates among growers experienced in their cultivation. And yet it is true that loyalty to particular varieties was qualified by the pervasive influence of quality, yield, and the cost-price relationship. It is probably correct to say that there was relatively little to weight the scales in favor of Acala, Pima, or Durango: strains from any one of these might have been developed into an excellent one variety cotton for California growers. But it was Acala which received the publicity—largely rooted in exaggerated stories of its quality and yield when planted in the Coachella Valley in 1920—and out of this circumstance arose the determination to organize the Acala growers into an association to promote the variety of their choice to a dominant position in the cotton culture of the state.

The association was particularly active in providing an ample source of pure seed, in fixing the price of seed (at such a high level that many prospective growers turned to cheaper sources), in contracting with ginneries to handle only Acala, in carrying on an intensive promotion campaign, and finally in piloting a bill through the state legislature which made Acala in 1926 the one legal variety in nine out of ten producing counties.

Although it mattered little which variety became dominant in the state it was of utmost importance that only one variety be grown. High standards of seed selection became practicable because the danger was eliminated of degeneration from seed mixing at the gins, and from cross fertilization between varieties and between annual plantings and ratoon (second year) growths. Growers received considerably more for their crops because the latter were almost entirely of a few grades and staple lengths.

Since 1925 there have been two important developments in the production of California cotton. The area of growth has been largely confined to the San Joaquin Valley. Gradually other crops, particularly fruits and vegetables, have crowded cotton out of the Coachella and Palo Verde Valleys of Riverside County and out of the Imperial Valley. Today only small acreages are planted to cotton around Indio and Calexico.

The second development relates to the variety improvement which has been made by the United States Department of Agriculture under the direction of Dr. George J. Harrison, Director of the Cotton Field Station at Shafter, California. From strains of Acala-5, which was grown in California between 1925 and 1934, the station's breeding blocks developed Acala-8 in sufficient quantity that it was able to replace the parent strain in 1934. In like manner was Acala-8

replaced in 1945 by Acala-P-18-C. During the succeeding four years developmental work was carried on in favor of Acala 4-42, a strain selected from an original seed lot of Acala 1517 shipped in from New Mexico. In 1949 Acala 4-42 was grown exclusively in the San Joaquin Valley.

The statistical record of cotton production in the state of California is depicted in Figure 1. Both acreage and output expanded rapidly in the periods 1924-29, 1930-37, and 1944-49. During each of these series of years the stimulus of relatively high prices for cotton was of paramount importance in the decision not only to expand acreage but also to increase the yield per acre. The curve for the

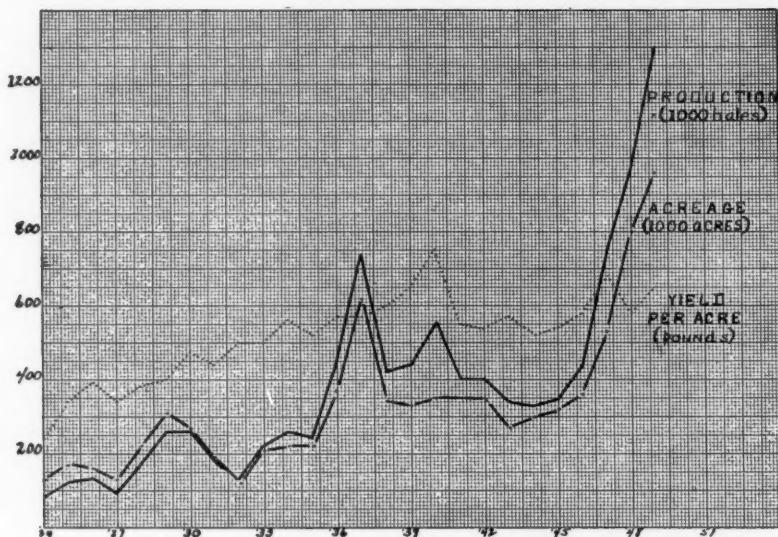


FIG. 1. Trend in the production of California cotton 1924-49

latter shows a steady positive trend between 1924 and 1937. Thereafter rather steady though high level returns were reported.

III

In the years prior to World War II very little California cotton found its way into the domestic market.⁹ Instead, it joined the flow of other West Coast traffic towards the Orient. Some of the details of this situation are reflected in Table III. The volume of cotton leaving the ports of Los Angeles and San Francisco increased from 304,000 bales in 1935 to 590,000 bales in 1937 and fell back to 349,000 bales in the following year. Reference to Figure 1 will bear out how closely exports were a reflection of production.

⁹ The principal source of information on the distribution of California cotton is the California-Arizona Cotton Association, Los Angeles.

For the period 1935-38 the countries of Asia received 70 per cent of all exports and over 61 per cent was sent to Japan alone. The leading manufacturers of cotton textiles in Europe provided a market for approximately 20 per cent. Water shipments to domestic markets, chiefly Boston, New Bedford, and Charleston, amounted to just under 7 per cent of the total volume exported from the ports of San Francisco and Los Angeles. There is no record of the volume sent East via rail during the same period but merchants in the business feel that it was of small consequence.

This distribution of California cotton in the 1930's was entirely logical.¹⁰ Japan dominated the manufacture of cotton textiles in Asia at that time, and despite

TABLE III
Destination of California Cotton Exports, 1935-38 and 1948

DESTINATION	1935	1936	1937	1938	1948
Total Exports	304	514	590	349	479
Asia.....	210	415	383	299	151
Japan.....	204	402	255	290	103
India.....	6	12	119	2	—
China.....	—	1	8	7	48
Europe.....	93	98	199	48	314
United Kingdom.....	39	43	132	21	59
Germany.....	37	27	45	7	50
France.....	16	18	18	17	22
Other.....	1	10	4	3	183
All Others.....	1	1	8	2	14

Source: California-Arizona Cotton Association, "Movement Report" (Los Angeles: 1939, 1949), 95-39/40; 126-49/50. Values refer to 1,000 running bales and cover exports from the ports of Los Angeles and San Francisco for the crop years beginning August 1.

her bilateral agreement with India, she still needed fiber of intermediate staple length from other sources. Peru and the United States were the only important exporters in view of the fact that Egyptian cotton, considerably longer in staple, was utilized in the fine yarn markets of Europe and the United States. California exports to European countries merely filled out their requirements for bright fiber in staples of $1\frac{1}{3}$ to $1\frac{3}{4}$ inches. Under these circumstances the domestic market was practically ignored by the merchants on the Pacific Coast.

During the years of World War II, there was considerable contraction in both acreage and production from the levels reached in 1937, and of course, the growers

¹⁰ For a detailed exposition of the foreign market for cotton in the 1930's see Cyril O'Donnell, *Recent Trends in the Demand for American Cotton*, University of Chicago, Studies in Business Administration, Vol. XVIII, No. 1.

were guaranteed high percentages of parity in the prices received. Foreign markets were gone and merchants were forced to sell all of the cotton in the United States. This was a new experience for both sellers and buyers. The latter were, perhaps naturally, prejudiced in favor of rain-grown cotton since only those mills which customarily spun fiber imported from Egypt were acquainted with an irrigated product. Furthermore, it was something of a problem to promote California cotton in a market where much more than adequate supplies of rain-grown varieties were in existence. Some of the devices used in this tight situation were especially ingenious. Though not documented, for reasons which will be readily understood, stories are still told in the trade of local shippers and Memphis merchants using such devious means of concealing the California origin of their cotton as to store the product in a leased warehouse in the spot cash markets, and resell it from those locations as rain-grown fiber!

The grossly inept way in which California cotton was promoted in the eastern markets at this time heavily mortgaged the growers' prospects during the succeeding years. The instruction of spinners in the proper method of handling the fiber, and in the uses for which the fiber was particularly adaptable, was exceedingly sketchy and discontinuous. Many buyers claimed that California cotton was especially neppy¹¹ (which was probably true), and that it took dyes differently than the rain-grown fiber (which has never been proved). In any case, word of the poor reputation of this cotton was not slow to make the rounds of spinners' circles. When this fact is coupled with the existence of a heavy surplus, it was inevitable that the California product would be discounted in the market as soon as the war-time controls were relaxed.

But this unsatisfactory market position did not interfere with the rapid expansion of the cotton acreage. The postwar prices remained an irresistible magnet which attracted new production annually. At the same time, the substantial differential between the delivered cost and the prevailing prices in the eastern central cash markets were more than enough to offset the discount insisted upon by mill buyers.¹²

IV

These circumstances which carried through 1946 and 1947 have recently become less acute. Several factors have been at work, and they all have tended to pull in the same direction. It is perfectly clear now that there is no fundamental reason for the undervaluation of the California product as far as the statistical position of cotton is concerned. The several factors which might conceivably be related to this problem are brought together in Table IV. The total supply of United States cotton varies inversely with the index of spot prices in ten markets, a relationship which should be expected even in spite of government control of production and marketing. There is no discernible correlation between the discount on California cotton and mill consumption, or between either of these series and the price or supply of commercial cotton. Of course, the period of time

¹¹ A nep is a small knot of tangled cotton fiber.

¹² *Journal of Farm Economics*, *op. cit.*

covered by the data of this Table is too short and the variety of market conditions too great for one to base a definitive answer on the statistics as presented. On the other hand, there is no theoretical reason to expect undervaluation to prevail.

No longer is it necessary for merchandisers of California cotton to execute a *tour de force* by invading the still-glutted eastern spinners' markets with all of the Pacific Coast production. A tentative step was taken in the recovery of foreign markets in 1947 when the occupying powers decided to permit some cotton imports into Japan and Germany. Furthermore, among our friends, the Marshall Plan helped finance the acquisition of some United States cotton of both rain-grown and irrigated types.

This movement achieved considerable impetus in 1948, when, as reported in Table III, the total exports of California cotton exceeded half the crop of that

TABLE IV

Relation between the Undervaluation of California Cotton, the Index of Spot Cash Prices in Ten Markets, the World Supply of United States Cotton, and the United States Mill Consumption, 1944-1948

YEAR BEGINNING AUGUST 1	DISCOUNT ON 1 $\frac{1}{8}$ " MIDDLING CALIFORNIA COTTON IN TEN MARKETS ^a (IN POINTS)	INDEX OF PRICES IN TEN MARKETS (1938-39 = 100) ^b	WORLD SUPPLY UNITED STATES COMMERCIAL COTTON (1000 BALES) ^c	UNITED STATES MILL CONSUMPTION (1000 BALES) ^c
1944	-27	241.0	23,235	9,448
1945	29	282.0	21,122	8,966
1946	33	370.8	18,316	9,765
1947	64	379.8	16,939	9,108
1948	-41	348.0	18,919	7,637

^a Data from Table I.

^b United States Department of Agriculture, *Cotton Price Statistics* (Washington: 1949), XXI: 2.

^c United States Department of Agriculture, *The Cotton Situation* (Washington: 1949), CS-125.

year and was not very far behind 1937, the best previous year. In this connection it is important to observe the exceedingly broad distribution of export cotton in 1948, and note especially that Europe replaced Asia as the chief buyer. This development should not be considered permanent. It is explainable by the fact that European nations had a great many dollars to spend on United States products and they chose to buy some cotton. If it is supposed (one scarcely knows what to assume these days) that the United States ceases in the future to make gifts and loans of dollars available to European countries then we should expect the future foreign outlet for California cotton to center about Asia in general, and Japan and India in particular. This is the natural market under conditions of free competition.

The complete substitution of Acala 4-42 for P-18-C during the year 1949 is bound to have a favorable effect upon the United States market for California cotton. The fiber differs in several important respects among which are fineness, tensile strength, alignment of the cellulose, and spinning behavior. On the basis

of laboratory tests, 4-42 is 20 per cent stronger and has 42 per cent fewer neps than the P-18-C. The latter difference is generally considered to be due to the coarser fiber of the new strain. Thus the conversion of total production to 4-42 has greatly modified the most important reason for the low esteem in which the earlier type of Pacific Coast cotton was held by spinners.¹³

If spinners were able to substantiate their claim that irrigated cotton takes dyes differently than the rain-grown varieties, they would have established an important reason for discounting this cotton in the market because it would not be possible for mills to mix the fiber derived from the various producing areas of the country. If mills had to use the two types they would have to make separate runs of each—a cost-raising factor which would amply justify lower prices for the less important growth. Indeed, it would appear that a thorough-going boycott of irrigated cotton would be justified.

The truth appears to be that unjustified rumors about the dyeing qualities of California cotton have been spread. The facts are that eastern mills are spinning irrigated cotton in ever-increasing volume, that their buyers are now ordered to go out to California and actively bid for the cotton at the time it is ginned; and that there is no known laboratory or mill dye test which has borne out the assertion that the irrigated product has distinctive dyeing properties.¹⁴ Indeed, the claim sounds more like an excuse offered by a mill buyer who was prejudiced in favor of rain-grown cotton and could see no reason to change his mind.

There is one production characteristic which can have an adverse effect on the marketing of Acala 4-42. This strain is notably earlier than the P-18-C and without sufficient care or indoctrination growers may well be inclined to irrigate and to institute insect control operations on a late schedule. The latter practice results in a large infestation of honey-dew¹⁵ and the former may result in the loss of the early crop.

Merchants in the trade are generally optimistic about the future competitive position of California cotton in the United States markets as well as in foreign outlets. They point to the improved spinning qualities of Acala 4-42, to the excellent results of laboratory tests of this strain, to better production practices on

¹³ From an unpublished statement by George J. Harrison, Senior Agronomist, Cotton Field Station, Shafter, California before the Twenty-Sixth Annual Meeting of the California-Arizona Cotton Association, Los Angeles, California, April 9, 1949.

¹⁴ The most extensive research work on the relative dyeing properties of irrigated and rain-grown cotton has been carried on by the North Carolina State School of Textiles. The facts relating to these properties appear to be as follows. The domestic irrigated cotton, if not neppy, takes dyes no differently than the rain-grown fiber. But if the cotton is neppy, these tangled fibers, when dyed, will be ever so slightly lighter in shade. For this reason the manufacturers of dresses, and in fact, of any cloth destined to be dyed a pastel shade, will tend to shy away from California fiber. On the other hand, there are many manufacturers who claim no difficulty in dyeing irrigated cotton. These firms are likely to produce prints, and other constructions where neps can be concealed. In summary, the evidence points to the fact that the basic problem facing California growers is the reduction of neps. Cf. Scott Hathorn, Jr., *Spinner Opinions of Irrigated Cotton* (Tucson: Arizona Agricultural Experiment Station Report No. 99).

¹⁵ Honey-dew is the common name for the excrement of aphids and white flies. In California the presence of honey-dew is thought to be due to needless irrigation in the autumn after the crop has begun to mature.

the part of growers in raising this early type, and to the increasingly favorable disposition of mill buyers towards this product. It may be that this optimism is entirely engendered by the premium achieved in the sale of the 1948 crop, a likely resultant of the above factors. The writer would add a word of caution. The disappearance of discounts in 1948 has little direct bearing upon the inter-fiber competitive struggle; and it is more closely related to an improvement in the statistical position of the particular qualities produced in California than it is a reflection of a promotional job well done.

V

Poor promotion seems to be one of the important characteristics of raw material marketing, particularly products like lumber, wool, coal, cotton, etc. Producers of these commodities exude the impression that their vested interest in the market arises from the 'fact' that consumers must use these products anyway. And there is little evidence that this enormous confidence is really tempered by the vigorous competition of current substitutes. Growers and manufacturers of cotton tolerated wool but ignored synthetic fibers in alarming degree in the decades of the twenties and thirties; they still have a very unrealistic point of view in this matter.

The growers and merchandisers of California cotton have inherited in large degree this attitude toward the necessity of promoting irrigated cotton. Conditioned by selling in an almost uncontested foreign market preceding the late war, they were totally unprepared for the decade of the 1940's when the sole outlet was the highly competitive eastern United States market. Spinning mills were steeped in a rain-grown cotton tradition extending back to Eli Whitney; their only use of "outside" cotton was confined to imported Egyptian, an extremely high quality product that perhaps few knew to be irrigated and fewer still actually spun; and they were very well aware of the enormous carryover. Into this market the California growers unexpectedly offered for sale from 400,000 to 800,000 bales per year. Such a feat, to be successful, would require a most carefully planned and executed promotion by the organized producers and merchandisers. No vestige of such a plan existed at any time. Quite on the contrary, merchants spasmodically used their individual ingenuity to find an outlet among eastern mills by both open and, apparently, devious means.

At the present time California cotton is almost exclusively promoted by the annual calls of merchants on eastern mill buyers. It is the practice of the former to make an extended trip through the eastern market every year. At this contact salesmen must not only meet real and fancied objections to the use of irrigated cotton; they must sell it in competition with the highly reputable rain-grown varieties. This once-a-year presentation can scarcely be what the situation calls for in view of the fact that these missionaries must sell their cotton, maintain a crowded call schedule, and convince, with extremely little official information, buyers who are already favorably disposed to the continued purchase of other varieties. It is inevitable that mills frequently buy California cotton at a discount, or that they barely are persuaded to try a sample shipment.

The writer has found only one piece of informative literature designed for the

education of spinners.¹⁶ Technical information is not widely disseminated—in fact it is not generally known even by merchandisers of California cotton. Merchants confine their advertising to the insertion of a card in trade journals. The California-Arizona Cotton Association, the only organization capable of representing the total output, is not in business for this purpose at all.¹⁷ Thus it is that education in the use of this cotton is in the hands of merchants during their contacts with mill buyers at the time of their annual *hegira* to eastern markets.

Of course there is a basic reason for the universally poor promotional performance of cotton producers. It lies in the fact that they are operating in a field of economic activity which is characterized by an extremely high degree of free competition. Both buyers and sellers are numerous. They are spread around the globe. Their interests are competitive not only among themselves, but also with respect to their counterparts who deal in natural and synthetic fibers. (For we should remember that in their uses all fibers are interchangeable.) There are many widely spread markets. No firm acting individually can possibly affect price. Even though certain areas appear to be dominated by highly integrated firms, the latter tread anonymously in the market place.

If the merchants who distribute California's fiber really want to sell something besides undifferentiated cotton, it is obvious that they ought to proceed by promoting Acala. What would be needed in these circumstances is a steady flow of technical information directed at spinning mills. They should be educated in the performance of Acala, comparative data should be cited in order to focus attention on the special advantages of this variety, emphasis should be placed upon the unusual brightness of the fiber, upon its distinctive high quality, upon its consistent uniformity of grade and staple, and upon the precision with which it is grown in the San Joaquin Valley. All these factors are of utmost importance and should be *continuously* dwelt upon in advertising copy, direct mail stuffers, and exhibits at conferences, fairs, and other public showings. This cotton can be sold as a unique product which will do certain things better than any other fiber.

This is "commodity" advertising, and it is the responsibility of organized effort. The way has been blazed successfully by other similarly situated producers. Of course it may be objected that in California, production of about three quarters of the crop is dominated by one cooperative and two private firms.¹⁸ But this circumstance should be looked upon as an advantage. It is much easier to get agreement among the few than it is among the many. And there is the further point that the remaining growers are engaged in much larger operations than are the planters of the south central and south east regions.

¹⁶ *California Acala 4-42*, Anderson, Clayton & Co., (Los Angeles, 1949).

¹⁷ This organization primarily serves cotton merchants in the arbitration of disputes.

¹⁸ This fact, in the writer's opinion, does not invalidate the proposition that the cotton market is highly competitive. It will be recalled that there is a world market for cotton, that many alternative sources of supply exist, that in the United States we have a chronic oversupply, that domestic and world production can be readily increased, and that the percentage of the United States crop which is grown in California is small. In addition, there is the effective competition of many other natural and synthetic fibers to be faced.

VI

California cotton growers lost their natural market in Asia during World War II and were forced to sell their product within the United States. They found it extremely difficult to dispose of the crop in this highly competitive market because: (1) it had been generally ignored during the 1920's and 1930's; (2) it was glutted with surplus fiber; and (3) a rain-grown cotton tradition had to be overcome. On the other hand, there were several factors in the growers' favor. Among these were: (1) production of a single variety fiber; (2) a strain not only of superior quality but one which was being continually improved; and (3) freedom to expand production to the point where the output was a significant part of the total supply in the United States.

These groups of circumstances pointed up the opportunity for vigorous promotion of the irrigated product. But practically nothing was done in this regard, and, in the peace years prior to the 1948-1949 season, the crops were sold at a discount. This lack of action was a reflection of the economic characteristics of the industry. Since Pacific Coast cotton was an undifferentiated product with respect to growers, and the demand for it was extremely elastic, individual action in the field of sales promotion was out of place. Cooperative or institutional action was definitely indicated as the proper means of selling this product.

BLUE SKY LAWS OF THE SOUTHEASTERN STATES

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While it is usually assumed that the first state Blue Sky law was passed by Kansas in 1911, a law regulating the sale of at least certain types of securities was passed by Georgia as early as 1904.¹ This was "an act to regulate the business of investment companies" and required companies selling "investment securities of any kind on the partial payment, installment or any other plan of payment, and providing for the redemption and retiring of the same, or any part thereof" to deposit in a trust company agreeable to the Comptroller General at least \$25,000 or not less than 75 per cent of the amount collected in payments. A statement of assets and liabilities and an annual income statement were also to be filed with the same state official. Thus, seven years prior to the date usually given for the first Blue Sky law, Georgia passed a statute designed to protect certain types of investors and may well claim credit for the first law in this field.² The year of the Kansas act, 1911, a second Southeastern state, North Carolina, passed a law regulating the sale of securities of foreign corporations.³

It is admittedly, however, the Kansas Blue Sky law which set the pattern for similar laws passed by all states in all parts of the country, with the notable exception of New York and states adjacent to it.⁴ States in the Southeast were all soon legislating in this field. Louisiana and South Carolina acted in 1912, followed in 1913 by Arkansas, Florida and Tennessee, with Georgia and North Carolina in this same year passing statutes much broader than their first ones noted above and in line with those of other states. In 1915, Alabama passed its first statute and in 1916, Mississippi and Virginia. Only Kentucky held back, passing its first securities statute in 1920.⁵

¹ Investment Companies, Business of Regulated, Part I, Title 6, No. 592, *Acts and Resolutions of the General Assembly of the State of Georgia*, 1904, pp. 74-79. Approved August 13, 1904.

² While it is quite apparent that this law was not as broad in its application as the statutes patterned on the later Kansas law, support for regarding it as a Blue Sky law is found in an editorial note to Georgia Securities Law, Chapter 97, *Georgia Code*. "Although the Georgia Securities Law (Acts of 1920, p. 250) did not expressly repeal Acts 1904, p. 74, . . . the 1904 Act has been omitted from this Code as having been repealed by implication by the Georgia Securities Law . . . upon the theory that the Georgia Securities Law is a comprehensive law embracing a complete scheme for the protection of those investing in securities of all classes, its purposes, like that of the 1904 Act which related to investment companies, being the protection of the investing public." (Italics supplied.)

³ Chapter 196, North Carolina Laws of 1911. Cited in *State v. Agey*, 88 SE 726.

⁴ Jacob M. Edelman, *Securities Regulation in the 48 States* (Chicago: Council of State Governments, 1942.) pp. 1-4. (Mimeographed.)

⁵ The dates are as given by Edelman, *op. cit.*, except the earlier Georgia and North Carolina laws. All dates, except those for Alabama and South Carolina, have been checked against independent sources.

The constitutionality of the early Blue Sky laws was successfully attacked in several state and federal district courts, and it was not until 1917 that the United States Supreme Court in a series of three decisions upheld the general validity of these statutes.⁶ In his brief supporting the Blue Sky law of his state in the case before the Supreme Court, the Attorney General of Ohio was able to cite only four decisions in which Blue Sky laws had been upheld as a valid exercise of the state's police power. All four of these cases were from Southeastern courts, namely, three state supreme courts, Arkansas,⁷ Florida,⁸ and North Carolina,⁹ and a Federal District court in Arkansas.¹⁰ Thus, it may be noted that legislatures of Southeastern states early dealt with the problem of security regulation and their courts were the first to permit enforcement of such statutes.

This should not be taken to imply that Southeastern states were averse in the administration of such laws. Likely, quite the contrary, for many transactions in the security field were carried out in these states during the booming twenties that would have at least been curbed if not eliminated by any effective application of these laws. Such, of course, was the case over the entire country. The passage by Congress in 1933 of the Federal Securities Act was an admission of the general ineffectiveness of state regulation in this field.

While this federal law greatly overshadowed the state laws in importance and attention, it did not result in the elimination of the state laws nor, so far as any evidence is available, in any less effective administration of them. Rather, the effect seems to have been the opposite. Regulation of the issuance of new securities became the accepted and expected condition; states had powers to regulate in this field, so why not exercise these powers? The size exemption under the federal act, first of \$100,000 and later of \$300,000, left a specific area for state action. The activities and perhaps notoriety of the Securities and Exchange Commission, no doubt, encouraged state administrators to more efficient application of their respective laws. Four Southeastern states completely rewrote their statutes after the passage of the federal law and there were substantial revisions in several others.

State Blue Sky laws, as a whole, provide for the regulation of security issues or the regulation of security dealers or, as is generally the case, both. At present, all states except Nevada have some type of statute. Insofar as the regulation of securities is concerned, as contrasted with the regulation of security dealers, state laws are either of the registration type or the fraud type.¹¹ Only four states, New York, New Jersey, Maryland, and Delaware, have statutes of the latter type.

⁶ *Hall v. Geiger-Jones Co.*, 242 U. S. 539 (Ohio statute); *Caldwell v. Sioux Falls Stock Yards Co.*, 242 U. S. 559 (South Dakota statute); *Merrick v. N. W. Halsey & Co.*, 242 U. S. 568 (Michigan statute). The three decisions were handed down on January 22, 1917.

⁷ *Mechanics Bldg. and Loan Assn. v. Coffman*, 162 S. W. 1090. November 24, 1913.

⁸ *Ex parte Taylor*, 66 So. 292. July 8, 1914.

⁹ *State v. Agey*, 88 SE 726. May 3, 1916.

¹⁰ *Standard Home Co. v. Davis*, 217 Fed. 904. October 15, 1914. The Arkansas statute was involved.

¹¹ See, for instance, *Financial Handbook* (New York: Ronald, 1948), p. 61.

Hence, this paper, limited to the eleven Southeastern states, will be concerned solely with the registration type statute.¹²

II

The general nature of the registration statute is that before securities, other than those covered by exemptions, can be lawfully offered for sale in the state, some procedure leading to the registration of the securities with the designated administrative agency must be followed. After the registration procedure, whatever it may be, has been completed, the securities may be lawfully offered for sale within the state. While all Southeastern states have this general type of statute two of these states, Mississippi and Tennessee, still have statutes patterned on the original Kansas "investment company" law, so-called because the issuing corporation is referred to in the law as an "investment company." Under these statutes, all issuers, not specifically exempted, are subjected to the same type of registration procedure, rather than having two or more classes of securities and a procedure for each class. Thus in the discussion of the less restrictive types of registration procedures, the laws of these two states will not be under consideration. Under the more modern statutes, registration can usually be carried out either by the issuing corporation or a registered dealer. The present Mississippi law permits this, but the Tennessee law has not been so modified.¹³ In other respects also, the Mississippi law conforms more to general practice than does the Tennessee act.

The laws are administered usually by a constitutional officer with many other assigned duties. The officers chosen for this responsibility in each of the eleven Southeastern states are as follows: Alabama, Attorney General; Arkansas, Bank Commissioner; Florida, a Securities Commission consisting of the Attorney General, Treasurer, and Comptroller; Georgia, Secretary of State; Kentucky, Director of the Division of Securities of the Department of Business Regulation; Louisiana, Bank Commissioner; Mississippi, Secretary of State; North Carolina

¹² This paper is based upon the contents of the Blue Sky statutes of the eleven Southeastern states. These statutes are as follows: Alabama Securities Act, *Code of Alabama*, 1940, Title 53, Secs. 9877-9899; Arkansas Securities Act, *Arkansas Statutes*, 1947, Sections 67-1201-67-1234; Florida Securities Law, *Florida Statutes*, 1941, Chapter 517; Georgia Securities Law, *Georgia Code*, Chapters 97-1-97-99; Kentucky Securities Law, *Kentucky Revised Statutes*, Secs. 292. 010-292.990; Louisiana Securities Act, *General Statutes of the State of Louisiana*, Chapter 4, Title 14, Secs. 1179.1-1179.23; Mississippi Securities Law, *Mississippi Code of 1942*, Article 2, Chapter 4, Title 21, Secs. 5360-5390; North Carolina Securities Law, *General Statutes of North Carolina*, Secs. 78-1-78-24; South Carolina Securities Act, *South Carolina Code*, 1942, Article 6, Chapter 157, Secs. 8114-8136; (Tennessee) Investment Companies, *Tennessee Code*, Chapter 4, Secs. 6056-6071; Virginia Securities Law, *Code of Virginia*, 1950, Chapter 8, Secs. 13-106-13-164. These statutes are referred to hereafter by use of the abbreviation of the state, with the appropriate section of the statute noted.

¹³ Gustav B. Margraf, in "Does Securities Regulation Hinder Financing Small Business?" (11 *Law and Contemporary Problems* 301, at 317) comments concerning the Tennessee law: "This type of statute has discouraged the sale in the state of many sound issues of both large and small companies and has deprived the public of an opportunity to purchase securities of unquestionable merit."

Secretary of State; South Carolina, Deputy Insurance Commissioner;¹⁴ Tennessee, Commissioner of Insurance and Banking; and Virginia, State Corporation Commission. Only in Kentucky is provision apparently made for the appointment of a full time *statutory* officer whose chief duty is the administration of the Blue Sky law. Some states provide for deputies, but the final responsibility rests with the officials named above.

Before examining the nature of the regulations, it will be desirable to consider the types of securities covered by the Blue Sky statutes. All of the statutes define the term "security" very broadly and then proceed to enumerate the types of securities and transactions which are exempted. An examination of the more customary exemptions is thus the most satisfactory way of defining the area of applicability of the laws.

Securities of the federal government and its instrumentalities are, of course, exempted by all eleven states. The same condition holds for state and municipal securities of any state, except in Tennessee where the exemption is applicable only to securities of that state and its municipalities. Seven of the eleven states exempt securities of foreign governments, but one of the seven, South Carolina, requires that in order to qualify for this exemption the security be registered with the Federal Securities and Exchange Commission. In the field of corporate securities, all states exempt securities of national and state banks; but in five states the exemption as to state banks is applicable only to banks chartered and supervised by the legislating state. Securities of building and loan associations, insurance companies, and Federal Land Banks are generally exempted. All of the states, again with the exception of Tennessee, exempt the securities of railroad and public service corporations subject to regulation with respect to rates and to the issuance of securities. To obtain this exemption in Virginia, however, the issuance of securities must be actually regulated, not merely subject to regulation. Equipment trust certificates are ordinarily specifically mentioned as a type of security not covered, and North Carolina includes also bonds secured by liens on vessels.

All of the Southeastern states, with the exception of Arkansas, with the most recently rewritten statute (1947) and Tennessee with the oldest applicable statute (1913), exempt securities listed on designated organized exchanges and securities of the same corporations senior thereto. To obtain this exemption, full listing is usually required. The exchanges are specified in the laws and range from one (New York Stock Exchange) in Alabama to eight in Virginia. In addition to the exchanges listed, the administrator can usually extend the privilege to securities listed on other recognized exchanges. Various criteria are given for determining whether an exchange should be approved.

Six states (Florida, Kentucky, Louisiana, North Carolina, South Carolina, and Virginia) grant exemptions to securities, other than common stock, of corporations which for a given number of years have paid contractual rates on their securities. The provision in the Florida statute is typical: "Any security, other than common stock, providing for a fixed return, which has been outstanding and

¹⁴ By Section 7942, 1948 Supplement to Code of Law of South Carolina, 1942.

in the hands of the public for a period of not less than five years, upon which no default in payment of principal or failure to pay the return fixed has occurred for a continuous immediately preceding period of five years.¹⁵ In addition to this exemption, North Carolina goes even further insofar as its domestic corporations are concerned. All securities of such corporations are exempted, provided the issuer has been operating for five years and has earned interest and preferred dividends one and one-half times and six per cent on common and has requisite tangible assets.

Other types of securities that are exempted are commercial paper (all states); mortgages sold to a single purchaser at a single sale (six states); and installment paper arising from the sale of consumer goods (two states). North Carolina is the only state specifically exempting securities which are legal for savings banks and trust funds, but the other exemptions should in other states take care of this group of securities. Kentucky exempts securities of domestic Rural Electric Cooperative Corporations, and Virginia, domestic corporations organized under the Cooperative Marketing Act.

Some exemptions arise because of the nature of the transaction. Thus, in the field of corporate securities, exemptions ordinarily apply to stock dividends and stock splits (ten states), to securities arising from reorganizations (eight states) or consolidations and mergers (six states), and to securities obtained through the exercise of conversion privileges (six states). New securities sold to old security holders where no commissions for selling are involved are exempted in nine states. The original sale of shares prior to incorporation, again where no commissions for selling are involved, is an exempted transaction in eight states. Judicial sales and sales by mortgagees are generally not covered, as is the case for isolated sales by owners who are not the issuer or the underwriter. Finally, the nature of the buyer may be the basis for the exemption. A majority of the states provide exemptions where the purchaser is a bank, insurance company, dealer, or corporation.

With these numerous differences in the exemptions found in the various statutes, a general statement as to the applicability of the laws can be at best a mere approximation. However, as a general statement it may be said that the Blue Sky laws of these states are applicable to the common stock of unlisted industrial and real estate corporations and to all other securities of such corporations where operations have not been either sufficiently long or sufficiently profitable to meet the standards of the statutes.

The laws in several of the states are not, however, limited to those instruments commonly thought of as securities. Virginia brings hospitalization and medical and surgical insurance under its law¹⁶ and Arkansas includes burial insurance. The major addition, however, is with regard to real estate. Three states, Georgia, Tennessee, and Virginia, subject the sale of certain real estate to the same type of regulation as that imposed on securities. This inclusion of real estate in Blue Sky statutes is of questionable desirability; but the older statutes seemingly were aimed at promotional activities of a speculative nature, regardless of the avenue

¹⁵ Fla., Chapter 517.05 par. 10.

¹⁶ Through a separate law; Title 32, Chap. 11, *Code of Virginia*, 1950.

of investment, and land speculation was no less important than security speculation. The Tennessee statute simply and sweepingly requires registration of the firm, either incorporated or unincorporated, offering for sale land situated outside the state. The same information is required from such companies as from those offering their securities. The Virginia statute requires registration of oil and mineral lands wherever located; unimproved lands outside the state offered on a deferred payment plan where the value of the land materially depends upon future promised improvements, such as irrigation, sidewalks, gas, lights, streets, etc.; and lands outside the state divided into lots for residential purposes or for "trees, vines, or shrubs." The same information is required for such lands as for securities that have to be qualified under the statute. The Georgia statute merely requires registration of the dealers in specified types of land. These include oil and mineral lands in the state and lots in subdivisions for residential purposes or orchard units if offered for sale outside the county in which they are situated.

III

With the exception of Mississippi and Tennessee, all of the Southeastern states divide the securities and other regulated investment media into at least two general classes. One class may be registered by a simple procedure generally known as "notification" and the other class by a somewhat more complex procedure generally known as "qualification." The two terms, "notification" and "qualification," are used in seven of the nine statutes which have two or more procedures. Georgia has a procedure for registering "Class C" securities and another for registering "Class D" securities, but these procedures are essentially the same as the notification and qualification procedures, respectively, of other states. Alabama does not use the terms but also has the same procedures. In addition to registration procedures for these two classes of securities, Florida and Kentucky each sets up an additional class of securities for purposes of registration, the nature of which will be treated below.

Securities are eligible for registration by notification in eight of these nine states (Virginia excepted) either because of the nature of the issuing corporation or the nature of the property being pledged. Corporations which have operated for a specified minimum number of years (three years in six of the eight states, two years in Georgia, and five years in Alabama) and which meet specified earnings standards are eligible for registration by notification. The earnings standards in all eight states are one and one-half times bond interest and one and one-half times preferred dividends, plus a stipulated rate on common. This rate on common is five per cent in five states, six per cent in two (Alabama and Kentucky) and three per cent in one (Georgia). The rate is calculated upon the price at which the stock is then being offered for sale or was sold. Generally these earnings must be average annual earnings for a period of not less than two nor more than ten years. Alabama adds asset standards to the earnings standards. In that state tangible assets must be 125 per cent of the bonds, 125 per cent of the par value of the preferred stock, and 100 per cent of the common, "reckoned at the price at which such stock is offered for sale or sold."¹⁷

¹⁷ Ala., Sec. 9879, par. (j).

In addition to corporations which fall into the above described group, Arkansas and South Carolina grant notification registration to securities of "seasoned corporations." To fall into this category, the security must have been registered with the Federal Securities and Exchange Commission and the issuing corporation must have "made annually available to its security holders, for at least ten years, financial reports including at least a balance sheet and a profit and loss or income statement," or have "had a net income for any two fiscal years of the five fiscal years preceding the date of the latest balance sheet filed with the registration statement."¹⁸ Arkansas also grants registration by notification to securities fully listed on designated and other "recognized and responsible" stock exchanges, and to securities acquired for resale by dealers and brokers in the ordinary course of business and concerning the corporation issuing the securities information is available in a recognized manual of securities. It was noted above that most of the states completely exempt listed securities; therefore, the Arkansas statute is more rather than less restrictive with regard to this class of securities.

In addition to using the record of financial operations of the company as a basis for granting registration by notification, five states (Alabama, Florida, Kentucky, Louisiana, and North Carolina) allow this simpler procedure for certain first mortgage bonds. Specifically excluded from this category in all of these states are bonds secured by first mortgages on mineral and oil lands. However, bonds secured by first mortgages on agricultural or city land may be registered by notification. The amount of the bonds on agricultural land must not exceed 70 per cent of its value in Florida, Alabama, and Kentucky; 60 per cent in North Carolina, and 50 per cent in Louisiana. Improvements on agricultural lands can go in for 60 per cent of their insured value in three states, 70 per cent in Kentucky, and for only 40 per cent in Louisiana. City land may be mortgaged up to 60 or 70 per cent of its value, depending upon the state, but must also, in all of the states, be earning the interest on the bonds plus a margin of three per cent. Other types of bonds mentioned in some of the statutes are first mortgage bonds on real estate leased for an amount sufficient to cover interest and principal over the life of the lease, first leasehold mortgage bonds with similar limitations, construction bonds meeting stated limitations, and collateral trust bonds based on mortgages of the types already noted.

Registration by notification is available in Virginia to securities not otherwise exempted which are offered by registered dealers, provided not more than 15 per cent of the total selling price of the securities is used for expenses incurred in organizing the corporation and in the flotation of the securities. Such registration is also apparently available to all types of securities other than those specifically requiring registration by qualification and not completely exempted from the application of the statute.¹⁹

¹⁸ The quotation is from the South Carolina statute, Sec. 7, par. 2. The Arkansas statute, Sec. 7, par. 2, is virtually identical.

¹⁹ The form of the Virginia statute differs substantially from that found in other states. The usual, all inclusive, definition of "securities" is given. Then, instead of stating the

It should be added that in three states, Georgia, Louisiana, and South Carolina, the administrator of the law has discretionary powers to allow other securities to be registered by notification where they are "substantially of the same quality and description" as the securities specified in the statute. The administrator in Georgia has used this power to grant registration by notification to certain bonds secured by first mortgages.²⁰

The requirements of the registration statement for securities meeting the notification standard is virtually the same in all the states. These requirements, certainly a minimum, are usually the following:

- (a) Name of issuer and location.
- (b) A brief description of the security including amount of the issue.
- (c) Amount of securities to be offered in the state.
- (d) A brief statement of the facts which show that the security falls within one of the classes that may be registered by notification.
- (e) The price at which the securities are to be offered for sale to the public.
- (f) A copy of the prospectus or circular, if any, either at the time of the filing of the registration statement or within a stipulated number of days.

Georgia departs from the above pattern by requiring a balance sheet and income account and the names and addresses of the principal officers. Virginia requires such information as "may have been previously prescribed by the commission."²¹

While the nine states permit registration by notification through the procedures as noted above, three states have alternative procedures as well. As noted above, the Arkansas and South Carolina statutes permit registration by notification of securities of so-called "seasoned corporations." In both of these states securities of such corporations may be registered by filing a notice of intention to offer the securities for sale, the amount that will be offered, and a copy of the prospectus filed with the Securities and Exchange Commission. The Louisiana statute permits the use of a copy of the registration statement filed with the Securities and Exchange Commission for any security being registered by notification.

In all of the states, the filing of the statement and the payment of the fee²² stipulated by the law constitutes the registration of the security. No action is required by the administrator; he may take action, but in the absence of action on his part, the security is registered. In only one state is there any stipulated

types of securities which may be registered by notification, as is the case in the other statutes, a section is given stating the types of securities which must be registered by qualification. This covers some 17 classes of securities and lands. The statute also includes the usual exemptions. Thus, it would appear that all securities covered by the statutory definition which are not specifically exempted and which are not included in the types of securities to be registered by qualification are to be registered by notification. See Secs. 2, 3, and 4 of the Virginia Securities Law.

²⁰ General Rule 11, under the Georgia Securities Law.

²¹ Va., Sec. 4, par. (m).

²² This fee is usually 1/20 of 1 per cent of the securities being offered in the state, with a usual minimum of \$10. No two states have the same maximum. The highest is \$1000 in Kentucky and the lowest is \$10 in South Carolina. The minimum in South Carolina is \$1.

waiting period between the filing of the statement and the offering of the security for sale. Arkansas requires a 48 hour interval.

Florida provides for a procedure for registration even simpler than that required for notification. This is called "Registration by Announcement" and can be accomplished by filing with the state Securities Commission a statement giving the name and location of the issuer, a brief description of the security, and a statement that the security has been outstanding and in the hands of the public not less than one year. This latter condition must, of course, be true if the security is eligible for such registration. In addition to this, the sale must not be made for the benefit of the issuer or underwriter.²³ It is thus a procedure for registering securities which are traded in the over-the-counter markets in other states but which had not at the time of the original distribution been registered in Florida. Kentucky has a provision for registering this same class of securities but the administrator may require as much information as for registration by notification.²⁴

IV

Registration by notification or announcement requires little more than the fraud statutes, such as the Martin Act in New York. Through registrations by these processes the regulatory bodies are kept informed as to the securities actually being offered for sale in the state and can use this information for seeking out fraud, should such be suspected, and through provisions in the law, to be noted below, can revoke the registration. But all such activity is designed primarily to stop fraud or malpractice after it develops. Registration by qualification, on the other hand, looks to the prevention of fraudulent and questionable practices in the distribution of securities and, in a very real sense, constitutes the heart of the Blue Sky statutes. This procedure is required of all securities not exempted or not eligible for the less restrictive forms.

All of the eleven Southeastern states have registration by qualification or its equivalent and, thus, in the following discussion all will be under consideration. The requirements of the registration statement for this procedure are much more complete than for notification, and while there are variations from state to state, the information called for is fairly well standardized. In addition to the name, location, and nature of the business offering the securities and a copy of the security being registered, the following information is usually required in the statement: names and addresses of officers, directors, trustees, partners, *et al*; a statement of the capitalization of the issuer; a balance sheet of recent date; an income statement for one or more years, or for the period of time the issuer had been in business;²⁵ the price of the offering and the amount of the commission;

²³ Fla., Chap. 517.09-1. A uniform fee of \$10 is levied.

²⁴ Ky., Chap. 292.080. The term "registration by announcement" is not used in the Kentucky statute. The procedure is referred to as "Registration of outstanding securities for resale or for trading purposes." The fee under this procedure is \$25.

²⁵ Note that the other registration procedures do not require any such financial information, except in Georgia.

considerations of cash, property, services, patents, goodwill, or other items received in exchange for the securities of the issuer; the amount of capital stock set aside as promotion stock; a copy of the prospectus and other advertising to be used; a copy of the charter or other instrument governing the formation of the issuer; and "a detailed statement of the plan upon which the issuer proposes to transact business."²⁶

Some of the departures from these requirements should be noted. The Alabama law gives to the administrator the power to prescribe the information to be filed but the rules promulgated under this authority call for essentially the same information as that noted above, with several additional items.²⁷ The Mississippi and Tennessee statutes are less explicit as to the information to be filed, but practice is to require the standard data, with some supplementary material.²⁸ Virginia's requirements, on the other hand, are set forth in even more detail than found in the usual statute. Louisiana is the only state permitting the issuing corporation to substitute a copy of the registration statement filed with the Securities and Exchange Commission in lieu of information called for in the state statute.

While the statutes, or the rules under the statutes, as the case may be, specify the information to be filed in most states, power is given to the administrator to require any additional information which in his judgment is "necessary to enable him to ascertain whether such securities should be registered."²⁹ The requirements are sufficiently uniform to permit the use of the National Association of Security Administrators' standard application form, either alone or with a supplementary appendix, in all eleven states. Actually, as of 1948, six of the states reported that the standard form was being used.³⁰ Thus, some progress toward uniformity is being made among the Southeastern states.

The filing of the registration statement, accompanied by the payment of the fee,³¹ is merely a first step toward qualification. Under notification, as has been pointed out, the filing of a minimal statement and the payment of the fee is, in the absence of any action by the administrator, all that is required. Such is definitely not the case with registration by qualification. In all eleven states, specific action is necessary to admit the security to registration and the statutes all establish standards which have to be met before the registration is granted. In

²⁶ This phrase is found as given in virtually all the statutes.

²⁷ Ala., Sec. 9884. *Rules, State Securities Commission of Alabama*, effective August 1, 1939. Rules 6 and 7.

²⁸ *Proceedings*, 35th Annual Convention of the National Association of Securities Administrators, July 19-22, 1948, p. 121.

²⁹ The quotation is from S. C., Sec. 8, par. 3. Similar statements may be found in most of the other laws.

³⁰ *Proceedings*, 35th Annual Convention of the National Association of Securities Administrators, July 19-22, 1948, p. 121.

³¹ Fees are usually higher for registration by qualification than for registration by notification. The modal rate is 1/10 of 1 per cent of the securities being offered in the state, with a customary minimum of \$25. Kentucky has a maximum of \$1000, but the usual maximum, if one is stated, is \$200 or \$250.

only one state is there noted any time limit upon the administrator taking action. North Carolina allows only 15 days.

What are the standards which have to be met before the security may be registered by qualification? While in Georgia, there is only the very general standard of the administrator being "satisfied with the showing made in the application,"³² in all other states more specific hurdles are set up. The most usual statement of the standard to be applied is that the security shall not be qualified if it is fraudulent, or if it tends to work a fraud upon the purchasers, or if the business of the issuer is based upon *unsound business principles*. In some states these conditions for refusing registration are elaborated. Among the conditions included are the following: presence of unfair, unjust, inequitable, illegal, or oppressive provisions in the charter or bylaws; insolvency or failing circumstances of issuer or guarantor; issuer is not trustworthy; issuer's plan of business is unfair, inequitable, dishonest, or fraudulent; use of misleading advertising; asset values, particularly intangible assets, have less value than issue price of securities exchanged for them; business is against public policy; sale is a mere scheme to dispose of worthless securities of no intrinsic value; and the sale is contrary to good business practice. In Tennessee, the registration is to be denied unless, in the opinion of the administrator, the security promises a fair return upon the investment.

Regardless of the variations in the wording of the statutes, the aim is a common one, namely, that the state administrator shall pass judgment upon the soundness of the security before it is offered and, therefore, to some extent substitute his opinion for that of the security buyer, even though the security buyer may have full information available. It is, of course, in this feature that the state laws differ fundamentally in principle from the Federal Securities Act. Full disclosure satisfies the federal law, but full disclosure coupled with soundness of the security being offered is necessary for compliance with the state laws. Southern security administrators have not developed a reputation for being as strict in the exercise of their authority as those of several mid-Western states,³³ but the power is theirs if they see fit to use it.

This general approach of providing protection beyond merely requiring complete disclosure is seen perhaps most clearly in the conditions usually given for revocation of the registration, such revocation being provided for regardless of the original registration procedure. Registration is to be suspended and/or revoked if it appears "that the business condition of the issuer is unsound or that the issuer of the security (a) is insolvent; (b) is of bad business repute; (c) does not conduct its business in accordance with the law; (d) is conducting its business on unsound business principles; (e) has violated any of the provisions of the state security law; (f) has been or is engaged or is about to engage in fraudulent conduct with regard to issues being issued or about to be issued by it, or issues registered by it; (g) is in any way acting dishonestly or has made any fraudulent representations in any prospectus or in any other literature; (h) has knowingly made or

³² Ga., Chap., 97-403a.

³³ See "For Those Who Don't Read," *Fortune*, Dec. 1946, p. 176.

caused to be made to the director (the administrator of the law) any false representation of a material fact or withheld from the director any information which, if submitted by him, would have rendered such security incompetent to be registered; or (i) has refused to permit an examination to be made by the director, or has failed to file any annual report required by the law, or to pay the required fee for the filing and examination of such report."⁸⁴ Alabama adds two significant provisions to the above list. In that state a registration statement is to be revoked if an issuer's assets are impaired to such an extent that assets do not equal 70 per cent of liabilities and legal capital, and, also, if dividends are paid out of anything other than net earnings or accumulated (*i.e.*, earned) surplus.

The Tennessee and Arkansas statutes permit action more drastic than mere revocation of the registration. In Tennessee, the administrator is to request the Attorney General to appoint a receiver when the issuer's assets do not equal liabilities or when the issuer is conducting its business in an unsafe, inequitable, or unauthorized manner. In Arkansas the administrator may take possession of such assets as are located in the state in the event the safety of the investment is impaired. In all of these provisions, the statutes are giving to the state administrator a continuing authority to pass judgment upon the soundness of the business as long as its securities are registered.

Another illustration of provisions of state laws that attempt to provide protection for the investor beyond full disclosure is those dealing with securities issued on the basis of intangible assets. The most common approach to this problem is to give to the administrator discretionary power to place in escrow all securities issued for "any patent rights, copyright, trademark, process, formula or good will or for organization or promotion fees or expenses, or for good will or going concern value or other intangible assets."⁸⁵ If placed in escrow, securities are to be withdrawn only after a stipulated dividend on common stock, usually six per cent of the purchase price, has been paid out of earnings. If the corporation should liquidate while any of its securities are so restricted, all other securities would be paid in full before anything would be allocated to the owners of the securities in escrow. In Georgia and Kentucky it is mandatory that the administrator require securities issued for intangibles to be placed in escrow. Further, the Georgia administrator has authority to limit the amount of stock issued for intangibles and has ruled that preferred stock can be issued only for "cash or its equivalent."⁸⁶ In Arkansas, intangible assets are limited to 20 per cent of total assets of the registrant. Three states, Kentucky, Mississippi, and Virginia, prohibit securities from being sold if selling expenses are in excess of 20 per cent.

A final type of protective feature is the provision found in several of the states requiring surety bonds of the issuing corporation or of the dealers or both. Alabama and Mississippi have the most restrictive provisions in this respect,

⁸⁴ The Kentucky law is quoted, Chap. 292.100. Similar provisions are found in Miss. (Sec. 5371), Fla. (Chap. 517.11), La. (Sec. 9), S. C. (Sec. 12), N. C. (Sec. 11, par. 2), and Ala. (Sec. 9891, par. 3).

⁸⁵ The quotation is from Fla., Chap. 517.18. All other states except Tennessee have either a mandatory or discretionary escrow provision.

⁸⁶ General Rule 12, under Georgia Securities Law.

both states requiring bonds of both the issuing corporations and the registered dealers. The amount of the bond is set by the administrator at not more than 10 per cent of the security being registered and in no case more than \$100,000. Florida requires bonds of dealers. The administrators in North Carolina and Virginia have discretionary powers to require bonds from issuing corporations, and the Arkansas administrator has the same power over both issuing corporations and registered dealers. Recoveries under these bonds are ordinarily limited to situations where losses have resulted from misrepresentation in the registration statement or from allegations made in the sale of the securities.

V

The second approach to the problem of regulating security issues made by the states lies in the requirements governing registration of security dealers and salesmen. All of the Southeastern states, except Tennessee, have some provision in their Blue Sky laws covering registration of dealers. Even in Tennessee, there is some suggestion of this type of regulation in the provision which permits an issuing corporation to appoint one or more agents which have to be registered with the administrator. This discussion, however, will be restricted to the other ten states where direct regulation of security dealers is established. There is a greater degree of uniformity in this part of the laws than in that regulating the issuance of securities.

The laws require dealers in securities, including usually those selling exempted securities, but not those engaging solely in exempted transactions, to register with the state administrator. The form and contents of the registration statement are usually determined by the administrator, with some specific requirements in the law. The North Carolina statute is particularly broad, simply requiring a statement "duly signed and sworn to, in such form as the commission may prescribe, giving particulars concerning the business reputation of the applicant."³⁷ Illustrative of the laws setting forth in more detail the requirements of the dealer's registration statement is the Kentucky statute which requires "the location of such dealer's principal office and all branch offices in this state, if any, the name or style of doing business, the names, residences and business addresses of all persons interested in the business as principals, partners, officers, and directors, specifying as to each his capacity and title, the general plan and character of business and the length of time the dealer has been engaged in business."³⁸ This same language is found in many of the other statutes. The application which the dealer makes is for a license renewable annually, permitting him to engage in the security business. A fee, ranging between \$25 and \$100, is paid at the time of registration and at each subsequent renewal. Salesmen are registered by the dealers for whom they work, the fee for their registration ranging between \$5 and \$20. These registrations are also on an annual basis and automatically terminate when the salesman leaves the dealer's employ.

³⁷ N. C., Sec. 19.

³⁸ Ky., Chap. 292.120, par. (2).

The general approach in the regulation of dealers is that the registration statement shall establish the good business repute of the applicant. The statutes generally enumerate grounds on which the registration statement should be refused or revoked. In addition to such practices as violation of the statute, fraudulent acts in connection with the sale of securities, misrepresentation, failing to account for customer's property or to deliver securities, there is generally included the much more general statement that registration should not be allowed, or if already in effect, should be revoked, in case the applicant "has demonstrated his unworthiness to transact the business of dealer or salesman."³⁹

State Blue Sky administrators thus are faced with the task of passing judgment upon the merits not only of many of the securities registered with them, but also upon the trustworthiness of all their dealers and salesmen. While the latter is somewhat closer to the federal requirements⁴⁰ than the former, even here the state administrator, at least insofar as the provisions to the statutes are concerned, is being called upon to substitute his judgment for that of the investor to a much greater degree than that required of his federal counterpart.

VI

The final feature of state Blue Sky laws to be considered is the penalties and remedies contained therein. The usual remedy, found in ten of the eleven states, Tennessee again being the exception, is to make sales carried out in violation of the law voidable at the election of the purchaser. This same end may well result from the wording of the Tennessee statute which contains the provision making it unlawful for the issuer to transact business in connection with the sale of securities without complying with the statute. The Supreme Court of Tennessee has held that an exchange of corporate stock for land, where the issuer had not complied and was not exempted, was void;⁴¹ similarly, that a stock subscription cannot be enforced if the corporation has not complied.⁴² These ideas logically might well be extended to include as void the exchange of stock for cash, under similar circumstances, recognizing that the recovery of cash might be substantially more difficult than the recovery of land. In the other statutes, however, the voidability of the sale is spelled out and is not, therefore, dependent upon court construction. In case the sale is voidable, the purchaser may proceed against the issuer in all states, against the issuer's agent in eight states, against directors in seven, and against officers in six. The individuals are usually jointly and severally liable. There is a time limit during which this action may be brought and is either one or two years in each state except Louisiana, which sets 13 months as the limit. No action to recover can be brought in five states if the purchaser has within a stipulated period of time (maximum 60 days) refused to give up his security in exchange for the purchase price plus interest.

³⁹ Fla., Chap. 517.16, par. (8).

⁴⁰ See Sec. 15 (b), Securities Exchange Act of 1934, as amended.

⁴¹ *Biddle v. Smith*, 228 S. W. 453.

⁴² *Goodyear v. Meux*, 228 S. W. 57.

In those states requiring surety bonds of either the corporation or its registered dealers, suit for recovery may be brought upon the bond.

While there is substantial uniformity in the provisions of the various laws regarding recovery, the criminal penalties vary widely. The simplest statement of criminal penalties is that found in the Florida statute: "Whoever violates any of the provisions of this chapter shall be guilty of a felony and upon conviction thereof shall be punished by a fine of not more than \$1000, or by imprisonment in the state penitentiary for not more than 2 years."⁴³ Virtually all states have a similar provision regarding willful violations of the statute (in some it is regarded as a misdemeanor) but most of them carry criminal penalties for other specific acts as well. Such prohibited acts carrying criminal penalties include making false statements in the registration statement or otherwise concerning the security or the issuer, making sales in violation of the laws, making sales without being registered as a dealer, and the making of statements by salesmen or dealers concerning the securities not substantiated by the registration documents. North Carolina and South Carolina provide heavier penalties for wash sales than for any other violation. While some states go higher, maximum fines assessable are usually \$1000, with maximum imprisonment of 5 years.

The laws, then, in summary, provide for recovery by the purchaser of money paid for securities sold without proper clearance and for criminal penalties for willful violations.

VII

While this analysis perhaps shows some tendency for a pattern in state laws covering securities to emerge, it no doubt shows even more strikingly the many divergences which still exist even among the states in the Southeast. Several attempts have been made to write an acceptable uniform Blue Sky law, but the ideal statute has undoubtedly not yet been produced. Experience should, however, by this time be sufficiently broad to permit some substantial progress toward a satisfactory uniform statute. Experimentation in the area of social control which the federal system allows, and which the late Justice Brandies pointed out as being one of its "happy incidents,"⁴⁴ should be beginning to produce more uniformity of opinion as to what is the best single state statute. The advantages of uniformity to the issuing corporation and to those engaged in the securities business are obvious; and there seems little likelihood that a uniform statute would in any way be detrimental to the security buying public.

No detailed consideration of a uniform statute will here be made, but two points should be considered in any move toward standardizing the laws. First, serious attention should be given as to whether full disclosure is not enough. Should the state administrator interject his opinion into the presumably private matter of an investor—or speculator—purchasing a given security, beyond seeing to it that all material information is available to the public? The general success of the federal statute based upon this principle strongly suggests this

⁴³ Fla., Chap. 517.30.

⁴⁴ See his dissenting opinion in *New State Ice Co. v. Liebmann*, 285 U. S. 262 at 311 (1932).

approach.⁴⁵ The fact that many of the issues being cleared exclusively with the state administrators are of small concerns should not be particularly pertinent to the argument. It is to be hoped that there is a greater degree of sophistication among security buyers today than there was forty years ago when the move toward Blue Sky legislation was getting under way. If so, then reliance upon the administrator's judgment is not as important now as it was at that time. Assuming that administrators have only so much time that can be devoted to these laws, using that time to make sure that all the facts concerning the securities are available to the public rather than using it to attempt to pass judgment upon the soundness of the businesses issuing them would likely prove beneficial to the investor both in the long and short run.

A second point that should be given careful thought in any revision of state laws is the effect upon state regulation of the passage of the Federal Securities Act of 1933 and the activities of the Securities and Exchange Commission under that and other acts. As has been noted in this paper, some states have given recognition to this development and have adjusted their laws to take advantage of these developments to some extent. Allowing issuers to file with the state administrators copies of their federal registration statement, or even copies of the federal prospectus, in lieu of the statements required by the state statutes would be a desirable provision. This does not mean that states should require the equivalent of a federal registration statement for all issues, but if the corporation has prepared such a statement, a copy of it would provide the state administrator with all the information needed and would relieve the issuing corporation of the burdens incident to preparing the same information in different form for the states. Power to examine issuers could be retained by the states if this were deemed necessary.

It is doubtless true that the effectiveness of state Blue Sky laws will depend as much or more upon their administration as upon their contents. Any recommendations with respect to improvements along this line would have to be based upon an examination of the actual practices of administrators, which has not here been attempted. Nevertheless, in view of the fact that most security administrators have that responsibility along with many others—it might well be referred to as a collateral duty, a term the meaning and implications of which are familiar to most ex-service men, at least—it seems essential as a minimum that all laws provide for appointment of a deputy who could exercise freely and fully the powers given by the statute to the administrator designated therein.

⁴⁵ For a different opinion, see T. Z. Wright, "Correlation of State Blue Sky Laws and the Federal Securities Act," 26 *Cornell Law Quarterly* 258.

IS A THEORY OF WAGES POSSIBLE?

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The ever active controversy over the usefulness of the body of economic doctrine called "price economics" seems to provoke its greatest heat when it is applied to policy considerations in the field of wage and employment relations, for it is there that more frequently than not its policy conclusions seem to conflict with apparently "liberal" or "humanitarian" measures.

It may be for this reason that the recent literature of labor economics is replete with empirical studies testing in one way or another the reality of received wage doctrine. Many students have followed through their empirical investigations with attempted reformulations of wage theory in the light of their empirical results.

It is the purpose of this paper to review briefly some of these empirical findings as the basis for some speculation around the question of whether a wage theory in usual terms is conceptually even possible, and, if not, in what terms it is possible.

Wage theory, as usually formulated, is simply a special application of price theory. Wages are analyzed in terms of the same generalized categories of forces as are any other price, those of supply and demand. The use of this terminology alone implies the concept of resolution of two sets of forces into a conceptual equilibrium, or a "tendency" toward some conceptual level. Wage theory, then, is an effort at isolation and generalization of forces affecting wages directed at discovery of a conceptual level toward which wages will tend.

This conceptual level is presumed to be useful in that it can be translated into an analytical level when the character of supply and demand forces can be identified. An observed or predicted change in supply or demand schedules can be translated into a predictable shift in the equilibrium level of wages, employment, or both. Wage theory thus presents itself as a tool for the prediction of the effect of social policy.

Without regard to the validity of a particular formulation of wage theory, one of the essentials to the conceptual validity of any formulation in this sense is the supposition that there is a functional relationship between wage rates and offers to buy or to sell labor. Workers and entrepreneurs must be assumed to wish to and be free to respond to wage differences in some manner subject to generalization. It is this assumed response which is the equilibrating force.

This assumption is prior to any debate, for example, as to the slope of the supply function for labor. Any slope presumes a functional relationship between wages and offers to sell labor. By like token, discussion around this basic assumption is prior to any discussion of the implications of the shape of a marginal wage cost function, for the latter is relevant only if it assumes a functional relationship between wage costs and employment in the firm. Particular combinations of these

characteristics may yield indeterminate wage or employment results, but indeterminateness within limits which bound possible wage or employment bargains.

Wage theory, like all price theory, is peculiarly difficult to subject to empirical test. Supply and demand schedules and equilibrium prices are purely conceptual, and cannot be translated into dollars and cents. One cannot objectively discover how much of a commodity would be bought or sold at any price other than that prevailing. Further, even the conceptual levels are placed in terms of such tentativeness that any real aberration can always be explained as a temporary disequilibrium. To this writer, one of the most irritating habits of price economists is that of explaining price movements in unexpected directions by saying that one of the levels was a disequilibrium. Price theory, in explaining things this way, only explains itself away.

There are, however, two ways in which, separately or in combination, some evidence as to the existence or non-existence of any functional relationship between wages and labor supply can be adduced. The first consists in investigating actual levels of wages to determine if wage patterns have any similarity to those which would be expected if there were a functional relationship. The second is to directly or indirectly investigate why people are in the labor market at all, and upon what basis they select a particular job against others that might be open to them.

While wage theory does not provide a tool with which to identify a particular equilibrium wage, it does follow that if wage earners wish to and can respond to wage differences, wide or persistent wage differences are impossible, at least within a particular labor market, or within each "non-competing group" within each labor market.¹ Competition among wage earners for jobs, and among employers for workers, based upon efforts to maximize wage payments and minimize wage costs will provide continuous impulses toward the elimination of wage differences.

The measurement of wage differences for the purpose of empirically testing wage theory is extremely difficult. The initial problem of a definition of wages is perhaps its most difficult aspect, for wage theory provides no careful statement of what kind of wages workers are presumed to be maximizing. It is probably safe, however, to presume that since wages are treated as a form of price, the kind of wages meant is a wage per unit of time or energy. The former would seem to be preferable as a measure of pecuniary attraction to workers, since they probably think in terms of wages per unit of time. Probably the preferable time measure is in terms of wages per hour, to eliminate in some part differences in energies expended in achieving income over a longer period of time. Both because better data are available, and because logically it seems acceptable, the measure of wages per hour should probably include all payments except the effect of overtime premiums, since the latter are a special price for labor which presum-

¹ Labor market here means those employment offers and opportunities which are jointly affected by discernibly related forces. The scope of any market therefore is definable only in terms of a particular period of time, since time is required for the potentialities of relationship of forces to express themselves.

ably takes a special wage to call forth. Actually, of course, all payments cannot be calculated. For example, the present value to workers of a future pension is not estimable.

As to employers, of course, the significance of wages is as a cost per input of energy. Cost per unit of time is not of primary importance. This difference in attitudes presents some conceptual difficulties, since the terms in which workers are presumed to be maximizing wages are different from those in which the employer is presumed to be minimizing them. This difficulty has been recognized and logically allowed for by the analysis of individual differences.

Another difficulty arises out of the terms in which employers and employees think of wages. It seems agreed that workers regard wages as an income producing price, and employers as a cost. However, all of the costs which arise out of the hiring of labor do not enter into worker income, and further, the costs which do not enter into worker income differ materially from employer to employer. Thus, workers are presumed to be maximizing something at least somewhat different from that which employers are presumed to be minimizing, not only because of differences in attitudes toward what is being bought and sold, but also in the fact that some labor employing expenditures do not enter into worker income.

These are only some of the conceptual and analytical difficulties in testing wage theory by an observation of wage patterns. One should be cautious, therefore, in regarding anything but very wide or very persistent wage differences as real in the context of wage theory.

Rather substantial evidence seems to show, however, that such wide and persistent differences do exist. It is not the purpose of this paper to review this evidence in detail, but simply to refer to some of it and draw general conclusions.

As to broad interregional differentials, a study of the United States Bureau of Labor Statistics indicates that over a forty-year period (1907 to 1945-1946) there has been no significant change in wage differences between the North and South. Expressed as a per cent of Northeastern median occupational wage rates, in 1907 median occupational wage rates in the South were 86 and in 1945-1946, 85. The only significant change in interregional wage patterns was a loss of some of the wage advantages held in the Far West between 1907 and 1919. From 1919 to 1945-1946, however, median occupational wage rates in the Far West remained at 115 per cent of those in the Northeast.²

One is never quite certain as to whether the wages that should tend toward equality are real or money wages. This uncertainty may result from the already mentioned difference in attitude of buyers and sellers of labor toward wages. However, the same study, in a more detailed analysis of differences for a group of individual industries between a number of cities, showed wide money differences which did not correspond with differences in living costs. "Among the cities under discussion, the cost of this (city worker's family) budget varied by no more than 15 per cent, whereas the range in hourly wages amounted to about 45 per cent for the average factory worker."³

² U. S. Bureau of Labor Statistics, *Trends in Wage Differentials, 1907-1947*, Serial No. R-1932, 1948.

³ *Ibid.*, p. 12.

Myers and MacLaurin, in a significant study of a local labor market consisting of two neighboring New England towns in two periods five years apart, observed astonishingly little tendency toward movement, and also observed that "... movement from lower-wage to higher-wage firms was largely ineffective in reducing differentials in rates for comparable jobs. Increases by the lower-wage firms between 1937 and 1942 were brought about more by minimum wage orders and the pressure of unions than by voluntary movement away from these firms. Higher-wage firms also made increases, thus leaving the ranking of firms in the community's wage structure unchanged, for the most part."⁴

A recent series of studies by the United States Bureau of Labor Statistics tends to emphasize the lack of uniformity of wage scales in urban labor markets. In Trenton, N. J., for example, straight-time average hourly earnings for male janitors and porters, an occupation which probably does not include jobs of very significant differences in content, ranged from under \$.70 to over \$1.90, with significant numbers of workers in wage ranges as far separated as \$1.00-\$1.05 and \$1.20-\$1.25. Average straight-time hourly earnings for maintenance machinists ranged from \$1.20 to over \$1.90, with large numbers of workers in each ten cent wage range from \$1.50 to \$1.90.⁵ Similar examples of wage differences within occupations common to a number of industries, and within occupations within each industry could be presented from the study of Trenton, and of the various other communities so far studied in this project.⁶

Experience of the National War Labor Board and its regional agencies in collecting wage data for the determination of "wage brackets" indicates the great dispersion of wage rates in "local labor market areas."

The available data, of which the above citations are only examples, would indicate that the typical situation of American wage patterns is one of great lack of uniformity, and that there are few perceptible centripetal tendencies.

Certain tendencies toward greater intra-industry uniformity are observable. These, however, are not attributable to the pressure of competing workers and employers seeking wage advantages, but rather to the activities of unions bargaining on a market-wide scale. Uniform needle trades, printing trades, building trades, railroad, maritime, steel and other wage rates are not indicative of a functional relationship between wage rates and offers to buy or sell labor, but are the result largely of the institutional drives toward survival and stability of organizations of workers, to be discussed later in this paper.

Turning to the research directed toward the question as to why people are in the labor force, recent work seems to indicate again a singular lack of the kind of functional relationship assumed by wage theorists. The size of the labor force out of a given population seems largely a function of demographic rather than economic variables. The dynamic factors seem to be those of changing social

⁴ C. A. Myers and W. R. MacLaurin, *The Movement of Factory Workers*, p. 73.

⁵ U. S. Bureau of Labor Statistics, *Occupational Wage Survey*, Trenton, N. J., March, 1949.

⁶ See: U. S. Bureau of Labor Statistics, *Occupational Wage Surveys*, Portland, Maine, March, 1949; Shreveport, La., March, 1949; Grand Rapids, Mich., April, 1949; Rockford, Ill., May, 1949; Spokane, Wash., March, 1949.

attitudes toward work of particular demographic groups, especially women. John D. Durand, one of the outstanding modern students of the labor force, concludes, with respect to short-term economic factors: "The inertia of tradition and habit tend to prevent sudden changes in such major features of behavior as participation in gainful employment."⁷

Even with respect to long-term changes, Durand emphasizes demographic forces, and attaches to "economic" factors importance not in terms of changing incomes, but in terms of the relationship between changing incomes and changing demographic composition, changing technologies, and changing work patterns:

Both economic and demographic factors have tended to reduce the employment of school-age youths and of older men and to increase the proportion of female workers. Economic changes which have been influential in this connection include technological developments which have reduced the relative demand for the labor of older men while increasing the demand for female labor; the decline of self-employment, which formerly provided a favorable field for gainful employment of elderly men; the expansion of white-collar and professional occupations, in which many women are employed; the rise of per capita income tending to encourage later entrance of young people into the labor force and perhaps to bring about earlier retirements of men; and the reduction of hours of work, introduction of housekeeping aids, and the development of commercial services for the home, all tending to facilitate the employment of women.⁸

Clarence D. Long, another outstanding modern expert on the labor force says: "Our tentative conclusion is that the over-all labor force may remain a fairly invariable proportion of the standard working-age population, at least relative to fluctuations in other important economic magnitudes."⁹

The author is fully aware of the distinctions between labor force and labor supply. One of the important variables not accounted for in the concept of the labor force is the possibility of varying offerings of work by a constant labor force with varying wage levels. Little analytical work is available on this question. The author submits the hypothesis, however, that except over considerable periods of time, hours of work and standards of work performance within a work hour are largely determined by social (including legal) considerations.

Direct investigations of the motivating forces guiding workers in their choice of jobs seems to indicate that, with respect at least to industrial workers, they are quite random in the context of wage differences. Reynolds' and Shister's study of the labor market in a New England town seems to indicate that the workers studied did little in the way of job comparison, even of non-wage factors, either when employed or when seeking a job.¹⁰ Further, wages were only one of a variety of factors in "job satisfaction," any one of which could at a particular time assume overwhelming importance in a worker's mind. The wage factor, while important, was not placed in terms of maximization of wage rates or earnings, but most frequently with respect to reference points not necessarily

⁷ J. D. Durand, *The Labor Force in the United States, 1890-1960*, p. 104.

⁸ *Ibid.*, p. 120.

⁹ In R. A. Lester and J. Shister (eds.), *Insights into Labor Issues*, p. 353.

¹⁰ L. G. Reynolds and J. Shister, *Job Horizons*.

implying close wage comparisons between alternative job opportunities. From this, and the work of other researchers, one infers that the worker, even now, is impressed by the scarcity of jobs, tends to take the first job available to him and to hang on to it. While concerned with wage levels, his concern is not with obtaining the best possible wage bargain. Above all he is "immobile," and what movement occurs is uninformed, planless and "irrational" in the setting of wage patterns, though perhaps perfectly rational in the context of other behavior patterns.

These behavior patterns cannot be dismissed as mere labor "immobilities." It is, of course, what they are, but they are subjective, and not objective hurdles in the way of a pecuniarily motivated "economic man." They cannot be eliminated by such measures as improved employment offices, relocation grants, etc., so that the labor market will efficiently perform its function of allocating labor in such a way as to eliminate wage differences.

Our population is not made up of people in the continuous process of deciding whether or not to seek work depending upon the income opportunities attached thereto, nor is the actual labor force made up of people actively seeking the best possible wage bargain; not even any substantial number of them act in this manner.

These considerations would seem to indicate that even where levels of wages are the product of a series of individual "bargains" between employers and employees, even assuming that employers are pecuniarily motivated, intersecting supply and demand schedules cannot be drawn. The supply schedule, if such there be, is in a different plane from the demand schedule. Workers' offers to sell are functionally related to something different from employers' offers to buy. The "other things" are equal only in the sense of being equally important.

The significant wage bargains in the American economy, however, are no longer individual bargains. Neglecting government, agriculture and domestic service, about half the nonsupervisory nonprofessional labor force works in employment where the terms of employment are determined by the process of collective bargaining. The great majority of workers in manufacturing, mining, construction and communication are organized.¹¹

The collective bargain, however, does not substitute for the individual bargain. It is a qualitatively different thing. It is sometimes said that the union, in bargaining collectively, acts as the agent of its individual members. In only a limited sense is this true. It does not act as an agent in concluding a contract of employment for each individual member. Upon the conclusion of a collective agreement, no individual worker has agreed to work at the terms specified. Individual workers, members or nonmembers, must still, as individuals, elect to work upon the terms specified by the agreement. The fact that in their capacities as members of the union they have ratified the agreement does not imply that any one of them will continue to work for the employer. All it means is that jointly they will not conspire to refrain from work or induce others to refrain. John Jones, union member, may vote to ratify a collective agreement; it still re-

¹¹ U. S. Bureau of Labor Statistics, *Handbook of Labor Statistics*, 1947, p. 133.

mains, however, for John Jones, worker, to decide to apply for a job or continue his employment, and for his employer to decide, within the limits open to him, to hire or continue to employ him.

After a collective agreement has been reached, each individual employee or potential employee must reach an individual contract of employment with the employer whose terms are limited by the collective agreement. An illustration which emphasizes this fact is in those collective agreements where the wage terms are expressed as minimums. In such cases, the individual worker reaches a contract of employment with his employer upon whose wage terms the collective agreement sets only a lower limit.

These limits are often quite rigid; but the fact remains that the collective agreement does not replace the individual agreement. The hiring process still remains, and employers and employees must still make individual contracts of employment.

It may be argued that we are making a distinction without a difference, that the conclusion of individual contracts of employment follows *pro forma* after the successful conclusion of the collective agreement. This is usually the case, but the point still needs to be made to emphasize certain characteristics of collective bargaining. The union, in the process of bargaining, is not selling labor, in the sense that a produce commission agent sells his principal's product. With rare exceptions, it does not guarantee the availability of any specific quantity of labor, and never guarantees the services of any particular worker. Again, it does not decide how much labor will be sold, as an enterpriser decides how much of a good to produce and sell.

Furthermore, with very rare exceptions, the employer in the collective agreement does not undertake to employ any quantity of labor, or any individual worker. He may agree to an order of hiring, or a basis of selection and retention, but in the collective agreement, he does not commit himself to the employment of any labor at all.

If the collective agreement is not a substitute for individual contracts of employment, what is it? Essentially, it is the joint determination of the content of certain business decisions, preceded by joint determination of what business decisions are to be jointly determined. The process of collective bargaining changes the locus of business control in some larger or smaller degree. Depending upon the scope of the agreement, business men no longer make unilateral decisions in larger or smaller aspects of their business in such a manner as to further whatever objectives are theirs. That is to say, collective bargaining about anything is an "infringement" upon a "prerogative" the particular management once had. Decisions are now made jointly, based upon whatever considerations guide unions as well as managements in making business decisions. The essence of collective bargaining is not the sale of labor, but the joint making of business decisions.

A great deal of research and speculative effort has been devoted to a study of unions to gain some insight into the considerations which guide them in the making of such business decisions. One conclusion commonly accepted, and

developed perhaps best by Arthur Ross,¹² is that unions are fundamentally "political institutions."

The author agrees with this conclusion and with the emphasis that has been laid upon it. But what, in essence, does it mean? Describing a union as an "institution" simply means that it is a going concern analytically distinct from its members or other personal participants. It develops a pattern of behavior of its own not entirely explicable by the algebraic sum of the patterns of behavior of its members. Describing a union as "political" means simply that it has an internal system of government, encompassing a hierarchy of status and authority.

Parenthetically, it will occur to almost any reader that if this is what is meant by describing the union as a "political institution," then businesses are also "political institutions." Of course that is so, but the conclusion to be drawn from this parallel might be that we have missed a significant aspect of business behavior, rather than that we can rest with a description of a union derived from our conventional hypothetical descriptions of business behavior.

If wage bargains are made in extensive areas of the economy between business and union institutions, and these bargains set limits upon the terms of individual employment contracts, we need to know something about the behavior patterns of these institutions before we can have a theory of wages.

Too many persons, in considering the work of such authors as Ross, account for the political but not the institutional character of unions. Thus Lindblom, in effect, argues that because unions are politically controlled by a majority of the employed members, union wage policy will be such as to continuously reduce the number of employed members by driving wages ever up.¹³ When one considers the separate "personality" of the union institution, this becomes absurd. For such a policy means institutional suicide—a gradual destruction of the lifeblood of the union, its membership.

The fundamental characteristic of the union as an institution, like that of most other institutions, is its drive toward institutional survival and expansion. This survival and expansion can take place fundamentally in two dimensions—in the dimension of the number of jobs for which decisions are made, and in the dimension of the number and significance of decisions made. The greater recent attention to the latter, sometimes called "infringement on managerial prerogatives," is explained by the fact that when most workers are organized, the dynamics of union expansion are necessarily channeled in this dimension.

The attainment of the objectives of survival and expansion has some relationship to the wage policy of the union—wage policy is certainly one of the significant instruments in achieving survival and expansion in terms of the number of jobs for which wage and other decisions may be made. But fundamentally the wage policy of a union is an instrument, not an objective, and a whole complex of instruments exists. A union can secure institutional stability by a succession of "sweetheart contracts" in which high wages are sold year after year for a union shop, by encompassing organizationally weak areas in company-wide or

¹² See his *Trade Union Wage Policy*.

¹³ See C. A. Lindblom, *Unions and Capitalism*.

multi-employer agreements in which the successful wage-increasing tactic of whip-sawing is abandoned, as well as by proving its worth by the achievement of higher wages.

The behavior of a union, then, in the process of collective bargaining cannot be uniquely related to wages, and the collective determination of wage rates cannot be regarded simply as a special case of monopoly. The union neither sells labor, nor seeks pecuniary reward in the process of collective bargaining. It participates in the decision as to the terms upon which labor may be bought, and seeks institutional survival and expansion through the bargaining process. If this be so, a theory of wages which relates the behavior of unions to wages alone is false, or at least completely unreal. Unions don't primarily seek, and therefore can't be presumed to be maximizing any pecuniary quantum, for itself or for its members.

Thus, if wages are determined by individual or by collective bargaining, offers to sell labor are not uniquely related to wages, and a wage theory as a special case of a general theory of prices is not possible.

Economists, however, need not abandon their function as wage analysts. A new and different framework of analysis does need to be developed. There is presented below the bold outlines of such a framework, believed by this author to be useful. Before presenting it, however, it is necessary to note a basic methodological concept, for some of the objections raised to conventional wage theory made to this point are sometimes disposed of by what this author considers an erroneous methodology.

Some wage theorists would admit nearly everything said so far, except the conclusion that a theory of wages alone is impossible. They would agree that into their "pure" system, which relates wages uniquely to a few variables can be introduced other "forces" with gradual qualification of conclusion until a reasonable approximation of reality is arrived at. This is the "*ceteris paribus*" method. It presumes a similarity between social and physical forces. In effect, a series of force parallelograms are constructed, with a new force related to the resolution of other forces in continuous succession. It makes no difference in what order variables are introduced into the system—the result is the same.

But social forces are not like physical ones; they are not additive in this manner. One can predict the behavior of a bullet by computing the effect of a given charge propelling it in a vacuum, then correcting for air density, etc. But, for example, when one contrasts the behavior of workers unorganized with what happens when they organize, the behavior of the union is not additive to that of individuals. It changes the whole pattern of individual behavior as well as introducing patterns of behavior unique to itself.

This would suggest that methodological analogies to the natural or physical sciences will only mislead in the social sciences. Economists can go as far wrong in applying biological laws of growth to social phenomena as they can physical laws of mechanics. The social sciences require their own rules of behavior based upon the observation of social phenomena in as all-inclusive a view as our perception permits.

We would begin our constructive analysis with the presumption that, as to the labor market, what we need to understand in our economy is the making of collective agreements. Viewed in the large, the growth of trade unionism has been continuous since 1850. But more significantly, it has been the rare case that the grip of trade unionism in any craft or industry has been broken, once established. As Dunlop has put it, trade unionism has grown by the expansion of "growth cones" in particular areas of the economy.¹⁴ As of the present, trade unionism is well established in the key areas of the American economy.

We start also with the presumption that trade unions are institutions having personalities of their own, distinct from those of their members or leaders, and that the common aspect of these personalities is the desire, vigorous or somnolent, for survival and expansion.

These personalities are expressed through the acts of trade union leaders who are also responsible to the membership in ways depending upon the character of the political structure of the organization. The survival value of the institution, then, can be directly furthered by the attainment of control over jobs or decisions, or by the achievement of objectives which will cement the loyalty of more and more workers to the union. Ross makes a somewhat similar categorization of union objectives, which he calls "union oriented" and "worker oriented,"¹⁵ but which we would prefer to call power oriented and welfare oriented. These terms are used, however, only in a relative sense—as we have said, all welfare demands have a power cast.

At any point of time, and in a particular bargaining situation, union demands can be arranged in a kind of spectrum, ranging from demands strongly welfare oriented at one end to those almost purely power oriented at the other. Particular demands may occupy a broad band in such a spectrum. For example, a demand to "plough new ground," that is, to bargain about something not previously bargained about has a very strong power connotation, but may have a strong welfare connotation only if the demand is achieved with some element of content. Thus, the right to bargain about work assignments is significant in itself, but it may result only in the writing of something like existing practice into an agreement, or it may result in changes that work strongly to the benefit of the employees.

Parenthetically, the attitudes of management toward the writing of existing practice into an agreement confirms the essential character of collective bargaining as a sharing of the power to make decisions. Great resistance will frequently be offered to union proposals to confirm existing practice in particular or in general. The objection rests almost entirely in the defense of "managerial prerogatives"—the locus of control over the enterprise.

The demand thus arranged can be assigned relative values in the various possible degrees of attainment. This is so, because to the union which will negotiate them they all have the common aspect of survival value. But the relative

¹⁴ See his essay, "The Development of Labor Organization," in Lester and Shister, *op. cit.*

¹⁵ See his *Trade Union Wage Policy*, p. 99.

values of the various demands will depend upon the time and circumstance under which the negotiations are being carried on. The political situation within the union may have resulted in overwhelming emphasis on, let us say, a pension. The present leaders may have made that the promise upon which they were elected to office. It will take a great many other concessions to equate to a pension. The existence of a strong rival union intent upon raiding may require the negotiation of a strong union security clause.

It is in the analysis of the interest groups in the membership, the political structure of the union institution, its obligations to the union community, the locus of control inside the union, and the system of internal union communication, that light can be shed upon the value to the union of demands in various positions in the union spectrum of objectives. The emphasis upon the union as a *political* institution is essential to an understanding of union behavior. A sufficient understanding of these aspects of a union will permit predictability not only of the equatability of demands, but of the nature of the demands themselves.

We would submit as an hypothesis that this is a convenient method of analysis of a union in the process of bargaining. We would further submit that managements have orderable and equatable objectives in the process of collective bargaining. It is this fact that permits the union officer quoted by Reynolds¹⁶ each year to trade the union shop for a five cent wage increase. This example indicates that the equatability lies in considerations other than primarily pecuniary ones.

It is not the purpose of this paper to analyze the character of business or managerial objectives. It is only necessary to state that they are orderable and equatable, in a sort of spectrum of objectives. We will advance as a first hypothesis, however, that the factor of equatability is in the need of the enterprise for survival and expansion, and that the formulation of objectives can be analyzed in terms of an understanding of such factors as the politics of enterprise, the locus of control, the internal system of communications, and the obligations to the business community, as well as in the financial and competitive position of the enterprise. This is particularly true of corporations controlled by a self-perpetuating managerial group whose status is tied to the significance of the enterprise in their charge.

In the process of collective bargaining, these spectra of objectives are counterposed against each other. The result depends upon the relative bargaining position of the parties.

A great deal of work has been done upon the determinants of relative bargaining strength. Labor economists adhering to bargaining theories of wages have worked hard on this aspect of bargaining. It is not necessary to repeat it here; it is sufficient to say that while that work was addressed to the implementation of an insoluble problem—a theory of wages—it is relevant to an analysis of what, *in toto*, comes out of collective bargaining.

Combining these things—a knowledge of the spectra of union and management, and of their relative bargaining position, one arrives at some analytical predictability of the outcome. One cannot predict the wage outcome, or any other

¹⁶ L. G. Reynolds, *Labor Economics and Labor Relations*, p. 183.

specific result, but one can pose the alternatives which are likely to result in terms of an entire employment bargain, and whether it will be heavily weighted toward welfare or power changes.

We have here no new theory of wages, indeed, no new or old theory of anything. We have suggested that traditional economists have erred in their propositions as to the keys to the behavior of individuals and of the union personality. We have suggested a way of ordering data that will, we believe, simplify its analysis. We suggest it as no more than that, but as such, as a useful way of looking at the problem of collective bargaining.

PRICE SUPPORTS AND THE DISTRIBUTION OF AGRICULTURAL INCOME

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Economics, however variously its aims may be phrased and slanted, is the study of the structure and function of the economic system with an eye to the utilization of resources to produce the greatest possible output of desired goods and services. The short-range goal is always public policy, the ultimate aim the good life, in terms of material things. From this vantage point, let us survey federal price supports for agricultural commodities. It is the purpose of this paper to inquire into the matter along three lines:

First, what has been the justification for price support programs?

Secondly, to what extent has public action achieved the purposes at which it has been ostensibly aimed?

And, lastly, to the extent that current and recent policies have miscarried or fallen short of the desired ends, what corrective amendments to such policies are in order?

Historically, the whole wave of propaganda for the recognition of some parity standard for agriculture has been based on depressed conditions in that industry.¹ During the 1920's American agriculture staggered under a burden of high mortgage indebtedness, interest costs and heavy taxes. Foreign markets had dropped off sharply. Increasing mechanization in agriculture released millions of acres of land formerly devoted to producing feed for livestock for use in increasing output of marketable crops. The result was a steadily rising tide of tenancy, mortgage foreclosures, and the failure of farm incomes to maintain the previous relationship to nonfarm incomes. The concept of parity came to the fore, the idea that somehow or other, due to whatever forces, the people in agriculture were not getting a fair break either in life or in sharing the output of the world's most productive economy, and with this concept came the demand for corrective action.

The failure of the Hoover Farm Board and the onset of the Great Depression aggravated conditions still further, gave farm leaders new insight into the functioning of the economy, and led to the enactment of New Deal legislation designed to aid agriculture.

Since 1933, price supports have been justified on various grounds, but with the exception of the war period, examination reveals that in all of the rationalizations there has been a common core. The parity concept and its related argument that "agriculture" was entitled to a fair share of the national income was inherited from the 1920's. Obviously no *industry*, agricultural or other, is entitled to anything or has any rights. It is the people in agriculture, the resources they

¹ Chester C. Davis, "The Development of Agricultural Policy Since the End of the World War," *Agricultural Yearbook*, 1940, U. S. Department of Agriculture, pp. 297-326.

utilize, and the flow of indispensable commodities from the land which are of concern for public policy. In this instance it is the people in the industry who have rights, and the rights demanded were the right to an income sufficient to enable them to live decently as judged by current standards, and the right to sufficient income to avoid liquidation as property holders in a private enterprise economy.

Price supports have also been justified in the name of soil conservation. The argument generally has run in terms of the necessity for the farmer to mine his soil or let it run to waste either because he could not afford conservation measures, because he had to mine the soil for more than he put back into it to maintain life and property; or because he was a poverty stricken tenant who, frequently on the move, had no vested right in the land and hence no incentive to indulge in conservation and better farming practices insofar as they were to yield a return only in the future. In both instances soil wastage was allegedly related to a deficiency in farm incomes.

One other frequently urged justification for price supports has been that farming people, if their incomes were raised and maintained, would become and remain a good market for industrial products, that such a market would give industry added opportunities and lead to an increase in the national income. There has also been the obvious need for some means of protecting agriculture against cyclical fluctuations which industry meets by reducing output and employment and holding prices relatively stable, but which agriculture is compelled to meet by continuing to produce and taking whatever the market will bring.²

All of these arguments are related, and federal action in the field of agricultural price supports, now running into the third decade, has been justified primarily by relating such supports to the level of income of rural people.

Agriculture was to get a "fair" share of national income, but get it via price supports which meant that he who produced "got," a thoroughly respectable concept. But the community has had other illusions and there is a persistent belief that price supports are the remedy for rural poverty. This belief is not without foundation for there has been a tendency for governmental and agricultural spokesmen to include all farm people in data on farm income and levels of living although both groups could not but have been aware that price supports alone were no solution to poverty in agriculture, or at least in large areas of agriculture, that indeed they had a tendency to aggravate conditions already existent.

The Census of 1950 should be revealing on the distribution of agricultural incomes, but the best figures at hand are taken from the *Sample Census of Agriculture in 1945*.

Data from this sample survey reveal something of the nature of the structure of agriculture, information which is of dramatic significance to our subject. According to these data, 57 per cent of the farms in the United States produced 95 per cent of the value of all farm products sold. In other words, a little over half of the enterprises in the industry produced 95 per cent of the total output.

² G. S. Shepherd, *Agricultural Price Analysis*, pp. 22-30.

Twenty-nine per cent of the total units produced 80 per cent of the total output. On a population basis 38 per cent of the agricultural population contributed less than 5 per cent of the total value of products sold. With farm population totalling roughly 25 million in 1945, this would mean that 9.5 million people in

TABLE 1
*Percentage of Farms, Farm Population, Farm Acreage, and Value of Farm Products, by Economic Class, United States, 1945**

CLASS	NUMBER OF FARMS	FARM POPULATION	FARM ACREAGE	GROSS VALUE OF FARM PRODUCTION	VALUE OF FARM PRODUCTS SOLD
	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>	<i>per cent</i>
I. Large-scale units.....	1.7	3.7	25.8	22.0	24.2
II. Large family farms.....	7.0	8.5	18.3	23.5	25.1
III. Medium family farms.....	20.0	21.3	24.1	30.0	30.5
IV. Small family farms.....	28.4	28.5	18.1	17.1	15.4
V. Part-time farms.....	10.3	10.9	2.3	1.9	.9
VI. Small holdings.....	15.8	14.0	5.8	4.2	3.0
VII. Nominal units.....	16.8	13.1	5.6	1.4	.7

* Special Report on the 1945 *Sample Census of Agriculture*. Roman numerals in this table correspond with class numbers in the definitions on pp. 15 and 16 of the *Sample Census*, and in Table 29 beginning on p. 120. (B.A.E.)

TABLE 2
*Number and Important Characteristics of Farms by Economic Class, United States, 1945**

CLASS	NUMBER OF FARMS	AVERAGE PER FARM				
		Harvested Cropland	All Land	Value of Land and Buildings	Value of Implements and Machinery	Gross Value of Products
	<i>(thousands)</i>	<i>acres</i>	<i>acres</i>			
I. Large-scale units.....	102.1	384	2,905	\$78,422	\$6,542	\$39,203
II. Large family farms.....	408.9	193	514	26,067	3,021	10,484
III. Med. family farms.....	1,173.0	104	236	11,135	1,616	4,658
IV. Small family farms.....	1,661.9	46	125	5,117	595	572
V. Part-time farms.....	602.2	10	43	2,585	209	374
VI. Small holdings.....	923.5	22	72	2,305	204	825
VII. Nominal units.....	987.3	11	65	3,583	176	264

* Special Report on the 1945 *Census of Agriculture*, pp. 15-16 and 120-159. Average of all farms in each class. (B.A.E.)

agriculture divided the value of 5 per cent of the output among them, while another 15.5 million shared the other 95 per cent. Varying the use of the data a little, we find that 67 per cent of the total farm population divided the value of roughly 20 per cent of the total output of products sold among them, i.e., roughly seventy per cent of the agricultural population divided 20 per cent of the gross income derived from products sold.

Figures on the basis of numbers of units and gross value of products are equally

revealing. The top 1,680,000 units in agriculture³ produced 80 per cent of the total output of the industry in terms of value of products sold. The balance of the farms, over 4 million units, produced the remaining 20 per cent of the output. Two and one-half million units produced 5 per cent of the total value of output sold, the average gross value of output per unit in this group not exceeding \$825, and the majority producing below this amount.

It should be noted that these figures relate to a year when agricultural output was not being restricted, a year when agricultural prices were high, and a year when industrial output and employment were at almost the all-time high. For our purposes the significance of these figures is that they reveal that in a year of favorable prices and output for agriculture, something like half of the agricultural population and over half of the enterprises produced so little that no conceivable level of price supports would make it possible for them to live at a level of health and decency.

If this be true, then what rationale led to such stress on price floors as a means of raising rural incomes? The answer is not easy, but one might say that the emphasis on price supports had its origin in (1) pressure from articulate commercial agriculture, and (2) public confusion over aims, purposes, procedures and probable results. Minimum prices were sufficient to restore a reasonable degree of prosperity to the upper forty per cent of agricultural enterprises. Commercial operators were not morally obligated to extend their lobbying to the point necessary to achieve the good life for small-scale and subsistence operators, or to hired farm labor, and, indeed, many of the commercial operators had a vested interest in beating down the competition of the smaller operators, and holding down the wages of hired labor, wages which were primarily of significance to them as costs. It is the community at large which has been basically at fault in not conducting a sufficiently keen appraisal of the price program to sense its shortcomings and its inherent conflicts.

This much we may conclude: Agricultural price supports were designed to increase the flow of funds into the agricultural segment of the economy, to ameliorate the evils attendant upon living conditions there and the threatened liquidation of property interests resulting from an unfavorable price-cost ratio, but the nature of a price support program is such that it alone can only bring relief to the producer, and it subsidizes him in ratio to the size of his operations. No serious inroads have been made into the poverty of the lower one-half in agriculture⁴ and millions of farmers, farm laborers and their families still live in grinding misery and poverty,⁵ and the babies of the migratory workers are still dying of malnutrition in the richest agricultural areas of the country.⁶

³ Out of a total of 5,857,000 units.

⁴ Data for 1945 are discussed above. For later years see: U. S. Department of Agriculture, Bureau of Agricultural Economics, *The Farm Income Situation*, Jan. 1950, Table 5, p. 9; for 1947 and 1948, Bureau of Agricultural Economics, Press Release of Feb. 10, 1949.

⁵ Clay L. Cochran, *Hired Farm Labor and the Federal Government*. University of North Carolina. (Unpublished doctoral dissertation) 1950, *passim*.

⁶ "... during one month last fall, twenty-eight farm workers' babies died, ten of them from malnutrition." (Editorial in the *San Joaquin Valley*, California.) "The Americans Nobody Wants," *Colliers Magazine*, April 1, 1950, p. 13.

If price support programs alone have fallen far short of the goal of establishing decent levels of living in rural areas, in what manner can we constructively amend national policy to attain that goal, however belatedly?

Any approach to the problem of rural poverty must take two basic factors into consideration. (1) Agriculture is a declining industry, relatively and absolutely. Since 1910 the number of persons engaged in agriculture has declined absolutely, and the evidence is clear that the decline under the existing conditions should have been more rapid,⁷ and (2) the rural areas are the "seed bed" of population for the nation. High rural birth rates constantly supply more manpower than is required to replace those retiring or dying in agriculture. In the absence of a relatively high rate of migration out of agriculture, there is a constant tendency for excessive quantities of labor to pile up in rural areas with detrimental effects on the value of rural labor, family and hired.

The primary causes of the decline of agriculture are the losses of foreign markets, the relative inelasticity of demand for agricultural products with a given distribution of the national income, and technological innovations which make it possible for less and less manpower to produce an ever increasing flow of produce. High rural birth rates are a result of the sociology of contemporary rural life, and are likely to be maintained for a considerable period if not indefinitely. Both the decline of agriculture and high rural birth rates can, for the present, be taken as given data.

The remedies for the problems posed by surplus rural manpower which result from the high rural birth rate and a declining agriculture lie beyond the confines of agriculture. An absolute condition precedent to a decent level of income in agriculture is a rate of industrial expansion sufficient to absorb the persistent excess of unemployed and, in addition, pull from rural areas a minimum of several hundred thousand agricultural workers and their families. Such a rate of expansion would have widely ramifying effects on the economy.⁸ In the first place, it would enable the underemployed and unemployed in urban areas to expand their consumption of agricultural products; secondly, it would pull workers presently in agriculture into urban areas and supply them with employment with a consequent increase in the demand for agricultural products; this decrease in rural labor supply would mean an increase in wages, and therefore purchasing power, of agricultural workers, hired and family. The migration of farm families to urban areas would make it possible to pour capital into agriculture through some such agency as the Farmers Home Administration for the purpose of integrating uneconomic sized farm units and increasing the efficiency and output of a part of the low income groups in agriculture.

Any program designed to remedy the poverty in rural areas which cannot be operated in conjunction with a sufficiently rapid expansion of industrial employment is doomed to fall short of the goal. For many years the agency best qualified

⁷ L. Bean, "The Farmer's Stake in Greater Industrial Production," U. S. Department of Agriculture, *Yearbook of Agriculture*, 1940, pp. 342-365.

⁸ *Ibid.*

to pour additional capital funds into agriculture has been starved for funds,⁹ in large part because the channeling of additional capital into agriculture would mean an increase in output. The dread of surpluses and the expensive apparatus involved in holding down output inhibited the development of more economic sized units in agriculture. The absence of such development held down farm incomes. Low farm incomes perpetuated poverty in rural areas, and held down purchasing power there. Thus it has become apparent that little improvement can take place in rural areas which is not preceded or accompanied by expansion of industrial output. Restriction of industrial expansion has restricted agricultural expansion, and restriction has meant unemployment, underemployment and poverty both in urban and rural areas.

If we cannot assume a high rate of industrial employment, there is little point in discussing poverty in agriculture, for it will continue as long as there is a surplus of manpower in agriculture. But, if we can assume a high rate of industrial expansion, appropriate programs in agriculture can reduce rural poverty to a minimum in a generation.

If an outlet for surplus manpower is provided, the principal cause of rural poverty would be removed, but there would still be problems centered around the price of agricultural products, the existence of millions of uneconomic sized farm units, the low level of farm wages absolutely and contrasted to urban wages, and the well-known problems of health, housing and education which are dominant features of some rural areas.

First, with reference to price supports for the future. There seem to be roughly three schools of thought on price supports. We may dispense with the arguments of the first group, arguments to the effect that there are no valid grounds for maintaining any kind of price supports. Whatever validity the arguments of this group may have in terms of static, orthodox theory, there is no validity to such arguments in terms of realistic public policy. Agriculture is in a position politically to demand, and get, price supports.

Restricting ourselves then to the two affirmative proposals for price support systems, what effect would adoption of one or the other have on agricultural incomes and the distribution thereof. First let us make it clear that there is no evidence at hand which would lead any competent observer to agree that there is any way to restrict agricultural output to the extent that industry has found it possible to do so. Had not World War II occurred at a fortuitous time, the bulging warehouses of the ever-normal granary would have burst asunder. Current news stories witness the recurrence of such a condition now that the abnormal conditions of war are past.¹⁰ And no system of acreage restrictions and marketing quotas yet thought up can hold back the production of the so-called surpluses of agriculture without carrying restriction and regimentation in agri-

⁹ Reference is made to appropriations for the Farm Security Administration and its successor agency the Farmers Home Administration.

¹⁰ For example see, *The Wall Street Journal*, issue of Aug. 1, 1950, p. 1.

culture beyond a point which the political traffic will bear. On this assumption, let us proceed to examine the alternative proposals.

The Farm Bureau proposal, largely embodied in the present Production Marketing Administration law, is roughly a continuation of past procedures; price floors will be fixed and the surpluses will be purchased by the government to be stored, dumped abroad, destroyed, or allowed to deteriorate. Price supports might be lowered sufficiently in certain lines with expectations of forcing marginal farmers out of agriculture or down into the ranks of hired farm labor. That such hopes are not likely to be fulfilled should be apparent from recent experience; poverty alone will not drive farmers from the land; there must be a place to go.

The Brannan plan has several advantages over the present system of price supports. In the first place it recognizes the inevitability of market surpluses and provides for disposal of such surpluses without relying on excessive storage, dumping and rot. In the second place, it stops the subsidy to farmers at an income level of about \$26,000, a marked change from the present program which has tended to be a subsidy for big operators¹¹—at least the bigger the operator, the bigger the subsidy. Lastly, and in connection with the problem of surpluses and the cost of subsidies, it has the marked advantage to the consumer of involving only one payment to support the program instead of the present arrangements by means of which the consumer is compelled to pay the bill once in taxes and a second time at the grocery store.

A system of price supports, alone, however, is no solution to the problems of agriculture even when taken in conjunction with a relatively high rate of industrial expansion. Price supports subsidize the producer, and subsidize him in ratio to his output. Even if the hired farm labor force were reduced in numbers, and some of the marginal farmers were pulled out of the industry, there would still exist hundreds of thousands, if not millions, of units which are of uneconomic size. An immediate problem would be encountered, the problem of providing capital to low income producers to enable them to consolidate uneconomic sized units, develop the integrated units, mechanize, and secure the necessary livestock and equipment. The appropriation of adequate funds for the Farmers Home Administration would solve this problem, and it could be solved through loans without serving as a drain on the public purse.

Price supports as they have operated in the past suffer from another deficiency, which, if they are to be continued, must be remedied. The commercial agricultural producer who has enjoyed a subsidy off and on for two decades has not been subjected to any regulations whatever regarding his working force. Agricultural wages have lagged far behind wages in industry.¹² Agricultural workers have been excluded from unemployment compensation, Old Age and

¹¹ There has been some comment to the effect that Secretary Brannan has abandoned this portion of his plan, but as late as July 13, 1950 he said: "Finally, we would limit supports for any one farmer to that amount of production which is available for sale from our largest family farms . . ." C. F. Brannan, "The Heart of our Nation," an address by the Secretary of Agriculture before the Institute of Public Affairs, University of Virginia, Charlottesville, Virginia, July 13, 1950.

¹² Clay L. Cochran, *op. cit.*, Chapter III.

Survivors Insurance, the wage, hour, and child labor provisions of the Fair Labor Standards Act, in fact, from every piece of social legislation enacted since 1933 with the exception of Old Age Assistance.¹³ This situation, particularly as regards wages and child labor, is notable for several reasons. In the first place the present levels of wages in agriculture fall far below the level essential to any minimum standards of health and decency. Such wage levels in conjunction with indiscriminate price supports threaten the economy in two ways. In the first place, there is no justification for subsidizing an industry and disregarding the status of the wage workers in that industry. Secondly, it is commonly recognized that under certain conditions the ability to maintain price and pay low wages results in the creation of excessive land values and a sea of unearned increment, neither of which are proper aims of price supports. Such wage levels have another effect on rural incomes. There are over a half million farm operators who worked off their farms more than 100 days per year in 1940. Many of them are, in effect, cottagers who rely primarily on wage work for a living. If they are to remain on the land, and they are an essential part of the hired force in agriculture, the primary benefits they can receive from price supports are in the form of higher wages. Under present provisions of the law they are in no position to benefit from supports at all in wage work, unless indirectly as a result of generally improved economic conditions. The third drawback to a price support program which does not carry with it certain minimum wage and employment standards as regards farm labor is the effect it has on the family type farm operator. As long as commercial farmers can continue to hire cheap labor and exploit children, soon or late, the family farmer who supplies his own labor and that of his family to his enterprise must sell his labor and that of his family at the price paid by the commercial operator.

The 1949 agricultural act provides that the cost of hired farm labor be included in the computation of parity prices. This enables the commercial operator to pass on his labor costs to the consumer and there is no longer any justification for agricultural workers being the underpaid group they have been in the past. The welfare of hired workers, subsistence operators who rely primarily on wage work for a living, and family farmers all require that any system of price supports in the future shall carry with it minimum wages, provision against the exploitation of children, and unemployment compensation.

Assuming a sufficiently rapid rate of increase in industrial employment, minimum price supports for agricultural commodities, protection and improvement of wage and employment standards in agriculture, the addition of needed capital resources for mechanization and integration, the worst evils in agriculture in recent decades would be removed. Upon such other obvious needs as a system of national health insurance and federal aid to education, aid which would benefit agricultural areas more than all other, we need not comment.

Federal price supports for farm commodities have been intended from the

¹³ Subsequent to the writing of this paper, the 1950 amendments to the Social Security Act extended coverage of Old Age and Survivors Insurance to regularly employed farm workers.

beginning to be beneficial primarily in that they would conduce to higher agricultural incomes. It is apparent that the principal beneficiaries of such supports have been the larger-scale operators, and that no system of price supports alone could have had other results. Price supports alone are no remedy for rural poverty. The basic causes of rural poverty are a result of agriculture's declining status as an industry and high rural birth rates, in conjunction with restrictive industrial practices. A condition precedent to any material improvement in agricultural living standards must be a high rate of expansion in industrial employment sufficient to reduce the supply of labor in agriculture and increase the market for agricultural products. Once this condition is met the way is open to integration and development in agriculture, and improvement of wages and family living standards. Price supports will and should be continued, but they should carry with them an upper limit to the benefits which shall accrue to commercial operators; surpluses should be channeled into consumption instead of being dumped or allowed to rot. In addition, if agriculture is to enjoy a subsidy, it should be obligated to pay minimum wages, provide unemployment compensation for hired workers, cease to sweat children, and in general put its labor house in order. A system of national health insurance and federal aid to education would be of added benefit.

It is along these avenues that we must move if the rural population is to enjoy the benefits of our civilization. The remedy for rural poverty is not to force agricultural people to divide up an inadequate total income among them, nor to make them a drain upon the balance of the populace. Means must be found to open opportunities for unemployed and underemployed people in agriculture to contribute to the national output, and then protect them in their rights to a fair share. It is this approach which holds promise for the future, not the presently threatening resort to piling restriction upon restriction to the end that ultimately we may all live better on less.

COMMUNICATION

THE NORTH-SOUTH DIFFERENTIAL—A REPLY

With no desire to precipitate a carousal of reply—rejoinder—reply, I feel that three aspects of Mr. Buchanan's recent note¹ on my article, "Some Comments Upon the North-South Differential,"² deserve comment.

First, I was unaware—as I am sure Professors Sufrin, Swinyard and Stephenson were—that the writers of the earlier article³ and I had ever been parties to a controversy until Mr. Buchanan's note appeared. At least none of the three authors has in any way indicated to me that he interpreted my comments as an attempt to dispute the validity of his own approach. On the contrary, my purpose was to show that some of the conclusions reached by the authors automatically followed from their statistical methodology and that one of their conclusions should be modified and extended. In this connection, I stated that the authors' attempt to measure the productivity of labor in terms of "value added by manufacture" had a number of statistical shortcomings and that the nature of investment in a specific region bore significantly upon average annual incomes in the region. Since Mr. Buchanan elected to ignore the technical bases of the former assertion and, in his closing statement, virtually agreed with the latter,⁴ he did not make it quite clear as to whether the substance of his argument was intended as a corroboration or as a refutation of my own.

Secondly, Mr. Buchanan's assertion that "the acceptance of the difference in the type of investment as the basic determinant of regional earnings disparities implicitly assumes that regional industrial structures develop largely as a result of non-economic forces" has validity only in a frictionless economy always in equilibrium and in which knowledge and the mobility of all factors are perfect. The purpose of his statement was to point out that industries having a low labor-capital ratio have developed in the North and those having a high labor-capital ratio have developed in the South for economic reasons. Certainly no one simultaneously acquainted with the supply of factors in each of these regions and the simplest theoretical postulations would deny this. But to conclude from this, as Mr. Buchanan implicitly does, that investment lags capable of being shortened never exist and that policy measures cannot possibly affect the nature of investment in a region is to identify the actual economic world at all times with

¹ James M. Buchanan, "Note on the Differential Controversy," *Southern Economic Journal*, July 1950, pp. 59-60.

² *Southern Economic Journal*, Jan. 1950, pp. 279-283.

³ Sidney C. Sufrin, Alfred W. Swinyard, and Francis M. Stephenson, "The North-South Differential—A Different View," *Southern Economic Journal*, Oct. 1948, pp. 184-190. My own comments, cited above, were prompted by this article and grew out of a research project on regional labor productivity conducted by the author under a Julius Rosenwald grant in 1942.

⁴ Buchanan, *op. cit.*, see his final paragraph, p. 60.

the most elementary of our static theoretical models.⁵ Because this identification is seldom if ever warranted, the dynamic economic laws of change and adjustment are equally as relevant for purposes of policy and as much a part of economic theory as our system of comparative statics. Mr. Buchanan may have his own convictions and hence may not subscribe to this viewpoint. This, of course, is his privilege, but with it does not go the license to accuse those who do of being guilty of ignoring economic theory. Moreover, to passively accept the South's *status quo* as a *continuum* simply on the basis of present factor market conditions ignores much of what has recently been contributed to the field of locational decision making. For example, in their recent study, McLaughlin and Robock examined thirteen factors that have influenced entrepreneurial decisions to locate plants in the South;⁶ many of them, such as transportation rates and service, availability of buildings and sites, centralization vs. decentralization, state and local influences, promotional efforts and special inducements, etc., are policy epiphenomena. It is quite true that no positive steps designed to attract industry to the South can or should overcome strong economic forces which dictate location elsewhere, but they are not without effect.

In the third place, Mr. Buchanan is not consistent in his interpretation of the significance I attached, or failed to attach, to the importance of the regional labor-capital ratio as a determinant of the average annual income of labor in a region. In one place he states, "It appears that Professor Markham, in attributing too much importance to the type of investment itself, has failed to realize that this in turn is derivative from the factor ratios in large part . . ."⁷ In another, he states, "Professor Markham further implies that public policy in the South should be oriented towards the attraction of newer and heavier industries (higher capital to labor ratios) . . ."⁸ It would seem self-evident to me that an author is not guilty of overlooking something he recommends, but it is an author's responsibility to state his views with sufficient clarity to eliminate the possibility of placing contradictory constructions upon them. I would, therefore, like to correct an impression the article left with Mr. Buchanan and, possibly, with others. In stressing the importance of the *form* of investment in the South for raising the average annual incomes of southern workers, I may have left the reader with the impression that I was either unaware of the significance of the total *amount* of investment relative to the labor force or chose to neglect it altogether. If grounds for such an impression are extant in the article, I should certainly hasten to remove them. However, since I concluded my treatment of this topic with the statement " . . . it would seem that certain conclusions tentatively reached by Professors Sufrin, Swinyard, and Stephenson, should be

⁵ One could conclude from Mr. Buchanan's line of reasoning that Marshall Plans and Point Four Programs cannot alter investment in backward regions since, if further investment were possible, it would have already taken place because economic laws would have so dictated it.

⁶ Glenn E. McLaughlin and Stefan Robock, *Why Industry Moves South*, NPA Committee of the South report No. 3, June 1949.

⁷ Buchanan, *op cit.*, p. 59.

⁸ *Ibid.*, p. 60.

modified and extended," in view of the argument which preceded it, I (by inference) accepted much of what the writers of the earlier article had said, but at the same time, wished to add something; namely, that demand for labor created by investment in the heavy industries is more likely to raise average annual incomes in the South than further investment in low-wage industries. With this Mr. Buchanan apparently agrees. I did not state, however, as Mr. Buchanan inferred,⁹ that the South should *discourage* any form of investment. Only when the total stock of capital in a region is accepted as a constant must we view a decrease in investment in one type of capital good as a necessary consequence of an increase in investment in another type—and Mr. Buchanan himself scorns any policy limited to "one or the other."¹⁰

Vanderbilt University

JESSE W. MARKHAM

⁹ *Ibid.*

¹⁰ *Ibid.*

BOOK REVIEWS

The Economics of Collective Action. By John R. Commons. New York: Macmillan Co., 1950. Pp. xii, 414. \$5.00.

This is the last book by Professor Commons. It sets forth in epitome the economic ideas of a man who in his long life as an economist became the foremost of American institutionalists. This book might well serve as a monument to the extraordinary capacity of this great teacher to arouse the affections of those whom he taught. This affection manifested itself in an unusually effective fashion in the stimulus it gave to his students themselves to become productive economists. The manuscript of the present volume was edited by one of Commons' graduate students, Kenneth H. Parsons, now Professor of Agricultural Economics at the University of Wisconsin. Professor Parsons also is responsible for the Introduction and a supplemental essay. The biographical sketch by Professor Selig Perlman which originally appeared in the *American Economic Review* is reprinted here.

It was Commons' nearly unique capacity to instill in his graduate students the understanding that knowledge did not originate exclusively either in books or in the closets of philosophers but was to be found in a study of the activities of men. Commons had little use for a theory of value based upon individual marginal utilities or for any economic doctrine which attempted to isolate the individual from the society in which he lived or from the institutions which that society had evolved. In this book, as in his former *Institutional Economics* and his *Legal Foundations of Capitalism* he says: "I now define an institution as collective action in control of individual action."

It was natural, since he held this concept of the nature of an institution, that he should have devoted the first years of his life as an economist to a study of labor unions and particularly of their "working rules." From this study there derived not only the monumental history of labor in the United States and the subsequent contributions in this field but those of his graduate student and assistant, the eminent Professor Selig Perlman as well. On the basis of his understanding of labor history, Commons made his greatest contribution in calling attention to the inevitability of the embodiment in the Common Law of the practices of labor unions, just as the practices of merchants, industrialists and corporations had been imbedded in a Common Law which had originally been founded upon the practices and codes of feudal barons.

To Commons, the legislation of the New Deal, giving increased powers to labor and to farmers, was a natural consequence in balancing the powers which corporations had been allowed to attain with the support of the law. Few men have so well pointed out the way in which the Supreme Court has adapted itself to the realities of economic life through the generations of Justices of the Court as did Commons. His demonstration of the way in which the concept of property was broadened to include ever more intangibles in addition to tangibles is masterly.

All this is set forth in the current volume. The hand of Professor Parsons, the

editor, is shown in the way in which the great mass of Commons' ideas are here set forth more succinctly and clearly than before. This was accomplished not by a hasty re-write job but as the fruit of long and continuous collaboration with Commons as the book was being produced. We all owe a debt to Parsons for this labor of love which is also a substantial contribution to knowledge.

Duke University

CALVIN E. HOOVER

Economic Doctrines. By Frank Amandus Neff. 2nd ed. New York: McGraw-Hill Book Co., 1950. Pp. xii, 532. \$4.50.

This is one of the most comprehensive attempts to cover the field of economic thought. The author attempts to cover a period of around 2,500 years and the writings of approximately one hundred economic philosophers. The comprehensiveness is perhaps the book's greatest strength and, likewise, its greatest weakness. The book covers so many writers that it is almost impossible within the limitations of a single volume to cover anyone adequately. However, the book has an excellent bibliography, and using this as a framework it is possible to build a satisfactory course in the development of economic thought around it.

The book is clearly and well written, and the author seems to have followed his own injunction in avoiding "fine writing." The style is simple and easily read. There are a few long involved sentences to confuse the reader.

One desirable feature of the book is the brief biographical sketch of each of the writers. This sketch goes beyond the simple "born and died" sketch but gives pertinent information about the social and economic background of the writers. It gives a sense of identification with the philosophers that is frequently lacking in other similar books.

Another feature of the book is the frequent use of direct quotations from the original writings of most of the authors. These passages are well chosen but suffer the same fate as other quotations lifted from their original context. In several instances the quotation seems to give a point of view that is contrary to the generally accepted point of view of the author.

The author makes frequent use of comparison with writers of other periods. He refers back to the opinions of previous writers and shows the points of difference in the opinions.

I am using this text in a course, "Development of Economic Ideas," and feel that it is a good text for such a course; however, it is necessary to assign a good deal of outside collateral reading. It is doubtful if any single-volume text could adequately cover such a broad field. I do feel that this is a good teachable text for such a course.

University of Miami

JOHN C. FETZER

Readings in Economics. Edited by K. William Kapp and Lore L. Kapp. New York: Barnes & Noble, 1949. Pp. vi, 444. \$2.75. Paper, \$1.50.

The authors of this collection of readings in the history of economic thought have chosen to emphasize types of analysis, rather than leading individuals, and the presuppositions and uses of thought, rather than doctrines as such. For

example, there are no selections from the *Wealth of Nations*, but Smith's *Theory of Moral Sentiments* is included in illustration of certain implicit postulates of the classical school. Marx appears only in an interpretation by Lenin, but there is a Part One in which "economics as part of a system of applied ethics" is illustrated through selections from St. Thomas Aquinas and Martin Luther, and a Part Three in which an attempt is made to show something of the role of economics in a planned economy. The main part of the book (Part Two) is headed "Political Economy as the Science of Market Economy." Here a wide range of selections shows well the quality and achievements of mercantilism, the classical school, the historical school, socialism, neo-classicism, and the theory of economic fluctuations. Such a book, of course, illustrates the authors' biases, but it is of interest in itself, as well as for the useful excerpts which it gathers together, and the basis of each selection is clearly stated. There are eight stimulating introductory statements, which very briefly set economic thought against a background of social conditions and relate it to the "general stream of thought." The selections from recent economists such as Wicksteed, Schumpeter, Mitchell, and A. P. Lerner will perhaps make this book useful as collateral reading in a variety of courses; for history of thought courses it makes readily available brief but important passages from such figures as Aquinas, Hornick, Petty, Hume, Quesnay, Schmoller, and Comte.

Vanderbilt University

EWING P. SHAHAN

Modern Economic Problems. By Myron H. Umbreit and others. New York: McGraw-Hill Book Co., 1950. Pp. xvii, 642. \$4.75.

A provincial preacher, noted among his flock as a fountainhead of spiritual values, when asked the secret of his inspirational force replied, "I tells 'em what I'm going to tell 'em; then I tells 'em; then I tells 'em what I told 'em." This methodology, in the experience of the reviewer, is a major premise of successful undergraduate pedagogy. The authors of the textbook under review apparently have also found repetition and integration necessary to instruction in elementary economics because their book is integrated as a whole, and each section and chapter is well integrated. The student is furnished with a context of each of the problems discussed as well as a description and analysis of the problem itself.

This textbook is a problems text as distinguished from a principles text. It is designed for use in courses on economic problems, the student having previously studied economic principles, presumably from the authors' principles book. It could also be used as additional reading in courses in which the distinction between theory and problems is not so finely drawn. In addition the book could be used in survey courses with the instructor offering a supplement of the necessary minimum of theory.

The coverage of the book is wider than that of the ordinary elementary text. Topics omitted or slighted in many conventional texts are given fuller treatment, e.g., the 100 per cent reserve plan, neo-malthusianism, the historical roots of economic nationalism, the social security programs of foreign countries, and many others. The histories of most of the problems are developed at greater

length than the scanty historical paragraphs typical of most textbooks. Macroeconomic magnitudes and national income are ably treated.

The handling of the business cycle is worthy of special mention. The business cycle is presented as the basic economic problem, and most of the leading theories and views on the business cycle are explored, including the Keynesian viewpoint. No one of these is especially espoused by the authors. Throughout the work the various problems are related to the business cycle.

The authors have obviously made an effort to be objective in their presentation of the problems; in general they have, in the opinion of the reviewer, succeeded as well as could be hoped. At times a bias does show through; this is particularly noticeable in the section on labor problems. Under the heading, "Basic Problems Relating to Labor," the authors list eight union practices most of which are obviously anti-social; the implication to the naïve reader is that all or most unions perform all of these practices, and that they do so out of greed. No attempt is made to show that few if any unions are or could be guilty of all of the practices, or to show that only certain types of unions are guilty of most of the practices. From reading the entire section on labor one might draw the conclusion that labor's ills are caused by unions. In the summary of this section the authors offer a masterpiece of understatement when they write, "We have not emphasized the beneficial results which organization produces" (p. 501).

The literary style is lucid and should be comprehensible to undergraduates. Each chapter contains a summary, questions, and problems; a good deal of current material is used in the questions and problems. That the authors have devoted long and serious attention to the methods of teaching elementary economics is evident from the masterful organization and integration of the book.

University of North Carolina

R. W. PROUTS

Economics: Experience & Analysis. By Broadus Mitchell and others. New York: William Sloane Associates, 1950. Pp. viii, 884. \$5.00.

This book is a well-written history and analysis of economic institutions and theory, valuable as a text in economic analysis, or as a reference book on economics in general.

Since the work is a compilation of several authors, all of its concepts do not come from any one school of economic theory. Naturally, then, each reader will find something in it to oppose. For instance, some will object to the following quotation from page 472.

It may be that private enterprise is waning beyond the point where it can be revived either by assault on monopoly or by direct aid to competition and individual initiative. It may be that profits . . . will insure to public enterprise. Developments in Britain and elsewhere following World War II . . . suggest that social planning will . . . supersede the hit-or-miss economy . . . That and similar experiments seem to show that public enterprise is surer and more resourceful than private enterprise can be, and that the national and even the international community will arrive at security by no other means.

The truth or untruth of this and other opinions should not detract from the usefulness of the book. It is well-written: technical language is avoided; charts

and graphs are few; chapters close with summaries and lists of references; the makeup of the book is attractive, easily read, and usually careful. There is, however, a typographical error in the first line of page 839.

The book begins with a history of economic experience of Europe, then turns to that of America. Section Three deals with the teachings of economists. Then follows a description of the American economy, including the analysis of value, the national income, business cycles, public finance, trends in organized labor, population, accounting, and basic statistical concepts. It concludes with a study of international economics, comparing economic systems and describing the outlook for America.

The two appendices are a listing of sources of current economic information, and a glossary of economic terms. The index is comprehensive.

In summary, the book is worthy of a place in any good library of economic information, because of its clarity and comprehensiveness; and would be useful as a textbook in economic experience and analysis.

Emory and Henry College

GEORGE E. MEEKER

The Dynamics of Business Cycles: A Study in Economic Fluctuations. By Jan Tinbergen and J. J. Polak. Chicago: University of Chicago Press, 1950. Pp. x, 366. \$5.00.

This translation of Professor Tinbergen's *Economische Bewegingsleer* (in Dutch, 1942), making available, according to the preface, an effective summary of Professor Tinbergen's writings, arrives with an assured welcome. To enhance this assurance one should emphasize that the language is completely non-mathematical. In general the book is to be highly recommended. All three parts (description, explanation, and policy) display great insight along with concise, deft, and simple treatment of potentially difficult material. Comment here will be limited to the latter two parts.

The policy section is a distinguished one, employing useful classifications and incisive analysis, and being obviously no mere echo of a school of thought. Nevertheless, the net conclusions on policy are not, in the reviewer's opinion, satisfactory. No genuine integration of "policies" into "a policy" is achieved; and the final effect, although less than fully "Keynesian," lends itself all too well to support of the practice, currently so popular, of eschewing rules and depending on authorities who will "employ all tools appropriate to the occasion."

Yet so good in many details is the policy discussion that it seems to the reviewer to bear a strange relation to the section on "explanation." The latter is primarily a simple presentation of the "econometric approach" (chapter xiii, especially pp. 195-223), and as such will surely prove a valuable item in reading lists. Tinbergen shows how a set of stable quantitative relations between income and expenditure may create continuing oscillations of income in response to a disturbance. He then argues that such potential influences as the price level, wage rates, and the rate of interest (this apparently for all relevant purposes, at any rate) are themselves determined by the level of income and expenditure. Thus, the cycle is a set of regularities such that there is no sense in asking the

cause of a turning point; it is predetermined "mathematically" by a set of relations. This exposition seems well designed to bring out the reason some of us retain a certain uneasiness about the work of econometricians in the study of business cycles. For the purpose of economic theory is not merely to discover regularities wherever they exist. It is rather to uncover the role of factors conceivably controllable through social consensus and to discover whether their treatment could change Tinbergen's oscillation-producing relations or, if not, could offset the evil effects of the latter. Such factors as prices and wage rates, the quantity of money, bank rate, and public finance fall into that category, in the sense that what to do with them is recurringly a matter of controversy. Tinbergen's theoretical formulation does not estop a wise man from raising relevant questions about them; but it is not clear that it encourages one to do so, or even that it does not discourage him; nor is it clear that, having raised the questions, he derives aid from this theory. The fact that Tinbergen on the one hand does question wisely and, on the other hand, offers no policy analysis for which his basic theory seems essential leaves one wondering whether he does not share some uncertainty about the usefulness of the theory.

University of North Carolina

CLARENCE PHILBROOK

Government and Business. By Vernon A. Mund. New York: Harper & Bros., 1950. Pp. x, 659. \$4.75.

By implication Corwin Edwards in his brief Introduction to this book calls it an "old-fashioned" text. This is because it concentrates upon the problem of competition and its maintenance as did "the old-fashioned course on the trust problem" which has "almost disappeared" (page vii). This approach is explained as a conscious refusal to follow the present tendency in courses and textbooks "to reflect what is new and politically well-advertised at the expense of what is less dramatic and novel," which tendency "has resulted in a substantial divergence between the relation of business to government as it appears in textbooks and that relation as it appears in American political thinking" (page vii).

But this does not mean that Professor Mund has considered no other problem of government in relation to business than that of competition. Indeed in the first words of his preface the author makes it plain that it is his intention to present a complete picture of these problems as they appear on the contemporary American scene. No amputated treatment is suggested in these words: "The primary purpose of this book is to explain the many ways in which business and economic life are shaped by government—either to promote the social welfare or to enhance the business incomes of politically important groups" (page ix). Only the proportions have been altered.

With this "old-fashioned" approach it should occasion no surprise that Professor Mund's treatment of the problem of maintaining competition is by far the best thing in his book. It is complete. It is thorough. It successfully mingles the law, economics, history, and social philosophy essential to an understanding of this large problem. It brings to the student a liberal sample of direct quotations from legal decisions and other sources. It is extensively documented and intro-

duces the student to a considerable number of materials of first importance in the field. It goes out of its way to put the problem of maintaining competition always within its larger political and social setting (although not always with conspicuous success—see below). It consistently and effectively puts in its place a popular view that cost-raising methods of competition can provide a satisfactory substitute for price competition.

By contrast Professor Mund's treatment of other aspects of government's relation to business suffers greatly. For example, the student will miss completely any introduction to the all-important economic bases for government activity in connection with "sick" industries, even though he will find a brief discussion of the Bituminous Coal Commission and of the Agriculture Adjustment Administration tucked away in a chapter entitled "The Direct Regulation of Prices by Government." In addition, public utility and common carrier regulation are treated so sketchily as to raise the very serious question why this material was included at all. And the treatment of government in relation to labor and government's responsibility for full employment will not advance the student significantly beyond the understanding he achieves in the average principles of economics course.

These shortcomings, however, are not major in a book that so pointedly treats these issues as secondary from the standpoint of the problem at hand. More serious is Professor Mund's failure to present a "balanced" discussion of the major problem of maintaining competition. Actually the book has more than a little of the flavor of an address by an Attorney-General in the midst of an especially active anti-trust assault. Even this would not be disturbing in itself; an author is entitled to his opinions and his crusade. What is disturbing is the failure of Professor Mund to give recognition to some very essential matters on which there is by no means agreement among those competent in this area of public policy.

Space will permit only the briefest mention of three such matters. First, Professor Mund appears to accept without question the proposition that reducing the size of concerns to the maximum extent possible without reducing efficiency would go a long way toward restoring the conditions requisite for spontaneous price competition. Second, Professor Mund does not allow for the possibility that there are some stability and innovation values (for the public) in size that may offset in part the disadvantage of combinations beyond the point of most efficient output in the short-run. Third, Professor Mund's thinking seems to be much more preoccupied with "atomistic" competition than with "workable" competition.

But, despite its shortcoming this volume is a refreshing departure from the traditional text in this field that endeavors to tell the student everything about everything. It is a book that deserves to be widely used in undergraduate courses.

University of Georgia

HOWARD R. SMITH

Economics and Public Utilities. By Eli Winston Clemens. New York: Appleton-Century-Crofts, 1950. Pp. xii, 765. \$5.75.

The title of this text, which the author says reflects the objective of his teaching program at the University of Maryland, adds an "and" in the place of the familiar "of". This reviewer finds little in this work that is not found in other texts known variously as *Public Utility Regulation*; *Outlines*; *Principles*, *Industries* or *Economics of Public Utilities*. This is true of most textbooks in any field for certain topics have been by necessity and custom included in the scope of the various fields included in the curricula. In this case the choice of the title seems to be an attempt to point up the author's approach to the problems presented by that peculiar organization—the public utility.

Whether or not the title is apt, the contents are very well organized and are certainly all embracing. Readability is enhanced by bold-faced paragraph headings and footnotes are found at the bottom of the page. The reader is not required to put his finger between the pages and search for the footnote at the back of the book. Perhaps the weakest parts of this book are the summaries or conclusions at the end of most of the chapters. The author in the preface has forewarned the reader that "obviously these digressions cannot be carried too far in a book designed primarily as a public utilities book." The reviewer is in agreement with the statement but hastens to add that what most instructors in public utility economics desire is a text in public utility economics. Perhaps the author should have left his digressions in the class room.

The criticisms raised thus far are minor. This is a good text. It is current; it is more readable than some, and it has an excellent bibliography and table of cases. But this text contains, as do all others known to the writer, concepts and/or statements that are confusing to the student beginning the study of public utilities. The student initially learns that a public utility is a business that is of such importance to the community that the conduct of the business is regulated by the community—that the business ceases to be *juris privati* and though the ownership remain in private hands, the operation of the business is regulated by a governmental body. To reiterate, the business designated as a *public utility* because it is "affected with the public interest" is still privately owned.

After the student learns the concept of a public utility and then explores the ramifications of commission regulation, the doctrine of fair value and the need for financial and accounting controls, he is acquainted with such projects as the Tennessee Valley Authority, the Bonneville Power Administration, various state power authorities, numerous municipally owned electric power, gas and water plants, as well as rural electrification by cooperative enterprises. These are "public utilities" or at least "utilities." But they are not private businesses. Selling electricity and water, sometimes gas and urban transportation, these enterprises are different from those in the field of private endeavor that supply the same services. The student is confused. He becomes more confused when he learns that governmentally owned enterprises such as schools, hospitals, creameries, hotels and trailer parks compete with like privately owned enterprises that are not subject to public utility regulation.

Perhaps the institutional approach, in which the author and the reviewer find merit, should be expanded by a facile writer like Professor Clemens to in-

clude a clarification of the term "public utility" applied to a regulated privately owned enterprise in apposition to the same terminology applied to a governmental authority, corporation or other agency operating an enterprise supplying goods for public consumption.

University of Tennessee

C. E. KUHLMAN

Economics of Transportation. By Marvin L. Fair and Ernest W. Williams, Jr. New York: Harper & Bros., 1950. Pp. x, 757. \$5.50.

Excepting the very recent revised edition of T. W. Van Metre's *Transportation in the United States*, this is the first general college text on transportation to appear since the third edition of D. P. Locklin's *Economics of Transportation*. Like T. C. Bigham's *Transportation Principles and Problems*, it treats all modes of transportation simultaneously in so far as it is possible to do so. These and other general books that might be mentioned, such as those of Stuart Daggett and Emory R. Johnson, together with several more specialized, recent studies, indicate an active interest in transportation problems.

The book is planned "to serve the needs of either a semester or a two-term course" in transportation. In order to facilitate this objective, it is divided into five parts designated as follows: economics of transportation development, economics of transportation service, economics of transportation rates, economics of transportation regulation, and problems of transportation policy. The thirty-six chapters of the five parts deal with the topics usually found in general treatments of the economics of transportation.

Repetition of the word "economics" in the titles of four parts and comments by the authors in the preface imply special emphasis upon the economic aspects of the topics considered, but the reviewer fails to find, with one exception, that the analysis is very different from that of other books on the economics of transportation. The exception is Part II, Economics of Transportation Service, which is the longest and most informative of all the parts. Some of the material therein is new, or at least is presented in a new way. The part on transport regulation is sketchier, carrying out the authors' assertion that the book is concerned primarily with the function of transportation rather than with its control in the public interest. Although the function of transportation should not be neglected, it would seem that control is entitled to emphasis in its own right, since the way transportation works depends partly upon how it is regulated. It also appears that cost analysis should be given more attention than incidental explanation in connection with rate theory.

The treatment is generally sound and the organization is good, although important points are not always made sharp enough for the average college student. Transportation specialists will agree with most of the recommendations for the improvement of national transportation policy: clearer definition of objectives, levy of user charges, greater interagency coordination of service, fairer distribution of tax and similar burdens, further consolidation of railroads, freer abandonment of lines, more liberal administration of the rules of rate making, and fewer unreasonable restrictions upon highway commerce. One proposal of the authors

will elicit less agreement; namely, discontinuance of the regulation of the rate level or profits. Even though the danger of exorbitant rates is less than in the past, so long as entry into service is restricted, as seems desirable, the certified carriers together could earn monopoly profits on nonexcessive investment. Potential competition from private carriers is effective only within broad limits. Another debatable proposal is to create a Secretary of Transportation with general jurisdiction over promotion and regulation. Closer coordination between promotion and regulation is sorely needed, but would a new executive department solve the problem? How bring the two functions together without seriously interfering with the independence of the regulatory agency?

University of Florida

TRUMAN C. BIGHAM

Air Transportation: Traffic and Management. By Thomas Wolfe. New York: McGraw-Hill Book Co., 1950. Pp. xvi, 765. \$6.00.

This book is a splendid contribution to an increasingly important field of study. It is indeed the most comprehensive coverage of traffic and management which has been made available to us in the field of air transportation thus far.

The content, in the opinion of the reviewer, is arranged in a very logical manner. A splendid but brief history of early aviation, generously documented with pictures and statistical charts, serves to properly orient the reader with regard to this very important industry. The discussion of geography and aviation and the accompanying impact of aviation on world politics and commerce is very timely and interesting.

The general subjects of air line organization and traffic organization and management are allotted more space and are more capably presented by Dr. Wolfe than is usually the case. Authors are too frequently inclined to minimize the importance of organization in business.

The section on air line costs and revenues is well presented both in tabular and graphic form. The discussion on air line financing and the discussion on the factors which influence costs and revenues should, I believe, be of interest to many air line administrators.

However, it would seem that there is one rather grave error of omission which is common to most authors in this field. The discussion of economics usually neglects to consider the type of demand which prevails for air transportation and, therefore, misses a fine opportunity to make a contribution to the field. The industry became aware of the highly elastic demand which exists for air travel only after repeatedly raising tariffs and seeing load factors and net revenue diminish day by day. The reviewer would like to see an able presentation of this important concept included in the discussion of economics of the air transportation industry.

The general subject of air line traffic is treated first from the technical point of view, i.e., tickets, ticket offices, tariffs, etc. Then the subject of sales is ably discussed in the final section of the treatise.

Dr. Wolfe acknowledges the fact that technical air line operations are not given extensive treatment in his text. This will no doubt detract from its utility

to some readers and classroom instructors. However, it is unlikely that any text by a single author will be completely adequate both from the traffic and operational points of view. This statement is based on the observation that very few men in the aviation industry today have training and experience sufficiently broad to enable them to write authoritatively on both phases of the subject.

This reviewer plans to use *Air Transportation Traffic and Management* as a basic text in a course in Air Line Operation and anticipates a very favorable reaction from advanced students of management.

University of Miami

GLENN A. SCOTT

Distributive Trading: An Economic Analysis. By Margaret Hall. New York: Longmans, Green and Co., 1950. Pp. vii, 203. \$1.60.

This is a worthwhile addition to marketing literature, scholarly in language, and well supported by footnote citations. It should be on the reading list of every graduate student majoring in marketing, and probably a number of professors could browse through it profitably—just by way of review.

Perhaps the author's chief contribution is a conciseness and positiveness in her statements of concepts which are not new but have often lacked clarity of statement. Her bluntness gives a refreshing emphasis to such concepts as the reader accepts and a stimulating challenge to those which he may be inclined to reject. For instance, in her Introduction she says: "Shopping has become one of the . . . most distasteful occupations." Later she points out that, "There cannot in any circumstances be perfect competition in retail trade." And again: Mechanization of distributive trades will always be limited relatively because, "centralized production has as its corollary decentralized distribution."

This book has some good practical economics, and enough good illustrations taken from marketing experience in the United States to make a direct appeal to readers in this country. It is especially good for comparing conditions and practices in the United States with those in Great Britain. It is rather slow reading, and is too concentrated for use by those who have not acquired a fair knowledge of marketing and economic principles.

University of Mississippi

KARL MORRISON

America's New Frontier: The Mountain West. By Morris E. Garnsey. New York: Alfred A. Knopf, 1950. Pp. xviii, 314, ix. \$3.50.

Potentially an economic frontier of the U. S., the mountain west is far from being that in reality. Working in the tradition of Odum, Vance, and other regionalists Morris Garnsey in his provocative book, *America's New Frontier*, paints a striking picture of the mountain west as it is today and proposes a program to lift the region out of the doldrums of economic infantilism.

The region, comprising the states of Colorado, Montana, Idaho, Utah, Wyoming, Arizona, and New Mexico, he feels, has all the attributes of a colonial section: economic imbalance—an agrarian economy; a debtor section; low incomes. These he maintains are due mainly to the high freight rates which have discouraged industry growth, and basing point system which has raised prices uneconomically. The West wants to develop its rudimentary industry. He argues

that the institutional arrangements designed to keep the east in pre-eminence should be abolished. And so must the conservatism of the western leaders, men whose blocs are based on functional interest without a regard for regional welfare.

A new policy is needed, one that is enlightened by recognition of the regional impact of such policy decisions. His is no sectionalist's plea; rather he feels the policy decisions of the federal government regarding taxation, for example, and those of business organization regarding plant location, for example, are determined on purely functional ground without regard for the different regional repercussions. The mountain west needs to reconstruct its place in the nation, and the nation needs to realize that here is a national problem, not a sectional one.

This means that a measure of government cooperation is necessary to effect such a reconstruction. A heritage of the old west has been the tradition of individualism and exploitation. This must go. A new technique must be devised and used to develop the region, a technique that requires a form of social organization other than the old one of individualism. The T.V.A. is his model for a Missouri Valley Authority to raise the economic standards of the region.

And Garnsey names and documents his case well and carefully. He points out how a change in the railroad meat rate structure, for example, caused an inflow of industrial capital into the mountain west. In 1945 packers in the cattle producing areas made a successful attempt to capture a share of the growing west coast market by seeking to have the meat rate barrier eliminated. Coast-state packers were importing live animals from the mountain west and were packing them. The rates were changed. The result? Cattle slaughter in Denver alone increased about 300 per cent over 1940, when the first rate reduction was won, as compared to a nation-wide increase of about 59 per cent. The result has been more income and employment in the region, although Garnsey is careful to point out that the general advantages and disadvantages to the entire economy of this particular regional shift in economic activity are difficult to assess. He does not ask for regional preferences; rather he wants a freight rate structure that would allow each region to develop according to its natural economic advantages.

There are many parallels that one can draw between this picture of the mountain west and the south. Both sections feel themselves to be underdeveloped and underprivileged in comparison with the nation as a whole. The colonial status of these regions to the Northeast has resulted in an economic imbalance in these areas—too much agriculture and not enough industry. And a colonial economy remains a debtor economy, never accumulating enough capital to develop its industries. Raw materials are shipped out of these regions and processed elsewhere and the value added to the product is never seen by the region originating the product, with resultant low incomes. A case could be built for Georgia which ships its kaolin to the north and buys back the same product but now in the form of earthenware and chinaware. But only one-ninth of the sale price of typical finished earthenware accrues to Georgia. We get the low wages, they get the profits. And we then cannot support many industries; we are not good markets.

Garnsey's book should be required reading for those interested in the problems of regional reconstruction.

University of Georgia

GEORGE S. PETRAS

Economic Survey of Latin America, 1948. Prepared by the Secretariat of the Economic Commission for Latin America, United Nations. New York: Columbia University Press, 1949. Pp. xx, 279. Paper, \$2.00.

Despite the title, this is a survey of economic changes in the eleven-year period, 1937-1947—not a cross-section of 20 national economies as of 1948. Post-war developments are compared with pre-war conditions, and abundant statistical material are employed to show the favorable effects of wartime expansion upon the economy of the area. The commission offers no panaceas for the problems that afflict Latin America but calls for continued "systematic research into the structure and functioning of the economies of the various countries."

Mainly a factual report, the survey consists of two main parts: Part One discusses trends in production, with emphasis on manufacturing, the construction industry, mining, and agriculture. The "other economic aspects" examined in Part Two include population, transportation, foreign trade, the balance of payments, and prices. The book has a statistical appendix but no index. It is reasonably priced and deserves a wide circulation.

While it would be unfair to say that the staff responsible for this study eschews criticism, a number of controversial issues receive short shrift. Most noticeable, though understandable, is the lack of any attempt to assess the influence of political or socio-political organization on economic progress. The chapter on "Population Characteristics" describes modern migration carefully but sidesteps the debatable point of the need for immigrants in Latin America.

This publication, like most of the economic studies of United Nations, sets a very respectable level of workmanship; and one may hope for a series of regional surveys, brought up to date from time to time. As for the Economic Commission for Latin America, having found the first plunge enervating, perhaps its members will be less timid the next time they jump in.

Duke University

ROBERT S. SMITH

Agricultural Requisites in Latin America. By Department of Economic Affairs, United Nations. New York: Columbia University Press, 1950. Pp. xvii, 156. Paper, \$1.25.

The Economic Development of Latin America and its Principal Problems. By Department of Economic Affairs, United Nations. New York: Columbia University Press, 1950. pp. v, 59. Paper, 40¢.

Relatively little has been written on Latin-American economic life. The above writings are contributions in this direction. The first deals with food supply, and the second describes possible industrialization of Latin America. Increased efficiency in food production goes hand-in-hand with industrial development by releasing labor. The over-all result should tend toward raised living standards if pitfalls are avoided.

Professor Prebisch's booklet explains Latin-American government financial fostering of economic growth due to lack of capital savings and their frequent improper use by individuals. Raw material exporting has placed Latin-America, he says, at a disadvantage with industrial centres, especially with the United

States with its reduced import coefficient. He believes that full employment in the United States will increase the coefficient sufficiently so that countries to the South can obtain enough dollars for purchase of capital goods required for industry expansion. Government deficit spending monetary aid aimed at reducing imports may result in inflation thus reducing purchasing power if productivity is not proportionately heightened. Thus an appeal to foreign savings appears inevitable in the author's opinion. Trade unbalance, chiefly with the United States, makes default probable. Anti-cyclical policy, also, becomes a perplexing problem. Industrialization might not be an unmitigated blessing.

The food supply study discusses certain problems affecting food supply that deals with farm machinery, fertilizers, pesticides, crop storage, drainage and irrigation, and fisheries.

Certain difficulties are common to all the problems mentioned. They are:

- (a) Insufficient technical knowledge and educational opportunities.
- (b) Lack of research.
- (c) Inadequate credit facilities.
- (d) Foreign-exchange shortage, especially dollars.
- (e) The high-cost of machinery and parts relative to individual user.
- (f) Poor and costly transportation and distribution facilities.
- (g) Poverty of the domestic market making for low domestic farm-production prices.

As regards farming specifically, other hindrances are apparent, such as:

- (a) Low yield per unit-area making modern requisites use actually uneconomic in some places.
- (b) Smallness of the operating Unit. This is a handicap to the use of power machinery pools.
- (c) Low incomes and relative plenty of labor chiefly owing to lack of employment alternatives. This also impedes the utilization of machinery that displaces man-power.
- (d) Lack of storage facilities. This is more important in the tropics than in the temperate regions. In Haiti, annual losses of stored wheat, corn, oats and rice is estimated at approximately 47 per cent of the total. On the other hand, Uruguay estimates its loss at about 14 per cent of the cereals harvested. Storage in tropic countries of perishables hardly exists, except for Cuba.

Employment of machinery, fertilizers and pesticides has increased considerably since 1938, but is still almost negligible per crop unit compared with other regions. Due to cost and sale price relationship, these requisites are mainly used in connection with export crops—fertilizers mainly for sugar cane and cotton growing, and most pesticides on bananas, cotton and certain fruits. More than half of the tractors in the region are found in Argentina and Mexico. Staple food crops, particularly corn and beans, continue to be primitively produced.

Capital scarcity and ignorance among farmers has placed the task of agricultural transformation upon the several governments, particularly the acquisition of machinery. High cost of transportation, too, makes requisites use in some districts economically unsound. Most private loans for machinery purposes in Mexico, for example, are made at 12 per cent, with a 40 per cent cash down-

payment and the balance due in one year. In Ecuador, such sales require a 50 per cent cash outlay, the balance payable monthly within 180 days at a 12.5 per cent interest rate per annum. Government financing has greatly reduced this. In Chile, for example, the Caja de Crédito Agrario provides two-year loans to farmers for purchase of farm machinery at 5 per cent per annum. Foreign exchange distribution by governments also influences greatly machinery imports. Renting of machinery by government organizations or those sponsored by government has given modern requisites use to small and moderate-sized farms unable to provide their own even on government credit.

Opportunities for expansion of the cultivated land in Latin-America are considerable though difficult financially. Mexico, Peru, Chile and Argentina together now possess 90 per cent of the irrigated area of the whole region, Mexico having the largest. These tracts are being colonized as lands are opened up.

As for fishing, the region has a low relative production record. In 1947, all twenty countries together, with about 135,000 active fishermen, landed 421,702 tons of fish compared with 477,152 tons caught in the same year by Iceland with around 6,300 fishermen. More equipment and expansion of low domestic consumption in the various countries are necessary. Proper transport facilities are inadequate. Research is needed on types of equipment and possible markets for the various kinds of fish as well as on fishing and processing methods. Coordination between nations would be of great help as would education of fishermen.

Louisiana Polytechnic Institute

WILBUR T. MEEK

Introduction to Labor Economics. By Orme W. Phelps. New York: McGraw-Hill Book Co., 1950. Pp. xvii, 554. \$4.50.

This introductory textbook in labor economics will in all probability gain many adoptions, resulting primarily from the fact that it is readable, concise, and offers the reader a good insight into the main problems in the field. Moreover, the exercises, readings, suggestions, and questions appearing at the end of each chapter will be an aid to the inquisitive student and the beginning teacher.

Phelps' book follows the general pattern of the better textbooks on labor problems, but it offers little that is new in the field. Yet, this rewriting of familiar themes has improved the general style and attractiveness of the introductory text. In the preface the author states that the book is not intended as either a research treatise or an encyclopedia; fortunately, these rather common pitfalls are avoided. In Chapter I ("What Labor Problems Are And How To Study Them") an excellent presentation is made of the basic problems in labor economics and how they should be approached. This chapter provides the best orientation for beginning students that has attracted this reviewer's attention. This first chapter also presents the three areas around which the book is organized, these are: income, security, and organization. With this approach the pattern is strikingly similar to the many other texts in the field whose authors have failed to improve upon the original outline of Professor Paul Douglas.

The student will probably gain insight into the complicated field of labor relations as a result of the author's diligence in providing background data, and in

his use of illustrative material (e.g., "The 1948 All-American Union Team," p. 253). Excellent elaborations are made on many topics; for example, the imperfections in the labor market, techniques used in the measurement of the labor force, the characteristics of scientific management, personnel administration and industrial relations, the influence of individual labor leaders, etc. The advantages of such an approach seemingly outweigh the slight disadvantages accruing from some attempts to place everything into neat pigeon-holes, such as the generalizations on the wage theories of labor and management. On the other hand, there are times when the reader would prefer a more definite expression of opinion, particularly on such matters as wage theory, the role of government, and the Taft-Hartley Act. One would naturally expect a solution to the wage controversy in Chapter V which is entitled "Who Is Right About Wages?"; however, the discussion provides little more than a restatement of the marginal approach, the bargaining theory, and the teachings of Lord Keynes. The issue presented in the chapter title is skillfully avoided.

The volume provides a proper balance between theory and the institutions operating in American labor relations without attaining verbosity. The treatment of theory relies heavily upon Keynesian doctrine with appropriate reservations. The institutional analysis is devoted largely to the organized labor movement with some attention to the role of government. All in all, the character of the book is such that the serious instructor in introductory labor economics should examine it carefully before choosing a text.

University of Tennessee

J. FRED HOLLY

American Labor Unions: Organization, Aims and Power. Compiled by Herbert L. Marx, Jr. New York: H. W. Wilson Co., 1950. Pp. 240. \$5.75.

This little volume is one of the series "The Reference Shelf," which "serves as a public forum presenting articles on timely controversial questions . . . followed by a comprehensive bibliography." Mr. Herbert L. Marx, Jr., who compiled the readings is associate editor of *Scholastic Magazines*, of which your reviewer has fond memories from his high school days.

The readings contained in the volume are from more or less "popular" sources, and it is apparent that the book as a whole is intended to serve a very elementary audience. Its concentration, consistent with its announced purpose, is on issues of immediate and controversial interest—for example, the Taft-Hartley Act, discussed after a very brief statement of its provisions by Mr. Marx, through selections from the N. A. M. and the A. F. of L.; multi-employer bargaining with contributions from Carol E. French, Ben Moreell, Sidney Lens, the *Commercial and Financial Chronicle*, the *Nation*, *United States News and World Report*, and the *Antioch Review*. Other major topics presented, with contributions from sources of this general type, include the structure of unionism, issues in collective bargaining (with concentration on pension and benefit demands), communism in the labor movement, and labor's community relations (with emphasis on politics).

On the whole, the articles are well selected from journalistic sources, with sufficient background material to make the controversy intelligible to a reader with-

out specialized knowledge. The collection should serve usefully on high school bookshelves, and will undoubtedly find uses as material supplementary to treatments of trade unions in elementary college economics courses.

The University of Texas

FREDERIC MEYERS

Industrial Peace in Our Time. By Hubert Somervell with an introduction by Elton Mayo. New York: Macmillan Co., 1950. Pp. xiv, 224. \$6.50.

This book is both a critique of the capitalist wage system and a blueprint for a new industrial order. In spite of the brevity of the book the author manages to take a rather broad view of a large subject-matter. He is scientific in his approach and flexible in his prescriptions. The book is nonrevolutionary but possibly utopian.

In Books I and II the author analyzes and evaluates the significant features of the guild and capitalistic systems, particularly in respect to their methods of organizing industrial relations. In the opinion of the author the guild system produced whole men who were well integrated members of a rational social order. The rational social order resulted from the fact that producers had a sense of belonging to their economic society, a feeling of security in their future, and an appreciation of the identity of the interest of their several classes. Unfortunately the guild system was unable to reconcile stability with progress and was displaced by the more dynamic capitalistic order.

The wage system, capitalism's instrument for the regulation of industrial relations, was unable to preserve the internal stability and order of the guild system. It created, instead, a storm of conflict which, according to the author, still rages today. The conflict arose out of the fact that labor became a commodity with a money cost that had to be controlled for the sake of profit. The wages-profit conflict severed the nexus between labor's interest and the finished product. Under capitalism, furthermore, unemployment was a cost that had to be borne altogether by labor. Labor organizations were permitted but they were inherently defensive.

Rejecting the present wage system as unworkable, the author outlines his Share Production system for the reorganization of industrial relations in Books III and IV. The Share Production System would be based upon a natural law: the relatively stable proportion which wages have borne to the value added by manufacture. Under the system wages would be determined by this historically given ratio. Management's and capital's shares would be the fixed proportion of the value added by manufacture remaining after the deduction of labor's share.

Thus in one fell stroke the author believes a new psychological basis for industrial relations would be laid. Gone would be the old warfare over wages as a cost. In its place would be a new harmony compounded out of the fact that labor's income would be directly related to labor productivity expressed as a fixed proportion of the value added by manufacture.

There are other features of Somervell's Share Production system, only the more important of which can be mentioned here. There would be guaranteed employment, permanent company membership, full information for employees, and continuous consultation by management with representatives of the employees.

Somervell is not specific as to the way in which his system of Share Production might be introduced. The government would guide and encourage the movement; but economic management would have to be decentralized in managements and unions if political and economic democracy were to be preserved. Unionism would be retained but there would have to be a decentralization of authority. Share production alone could not stabilize economic activity, so monetary policy would have to be brought into play.

The author admits that few, if any, thorough empirical tests of his proposals have been made. He points to the Nunn-Bush system of industrial relations as the practical case most consonant with his proposals. The Nunn-Bush experiment, in fact, may have given Somervell considerable original stimulation.

In light of the originality of Somervell's proposals this review has been expository rather than critical. There are, however, certain issues which the author has not settled to this reviewer's complete satisfaction. These may be partially indicated through the medium of a few broad questions. For example, is the author's assumption that the contemporary process of collective bargaining is incapable of reaching "reasonable values" acceptable to labor, management and the public altogether valid? Is there a natural law regulating the proportion that wages bear to other economic returns that could be abstracted from a given institutional fabric and applied for all time? If there is such a law, would organized labor accept it? Or would there not be as much bargaining over this ratio as there is now over the level of money wages? Is there a basic social harmony, furthermore, the key to which is in our grasp in the form of Share Production; or is this the problem of a far broader social ethic? In addition, would the national labor organizations be capable of allocating labor resources? And would the current wage structure be adequate as a criterion for the basic differentials of the future. These questions are to some extent imponderables and have been introduced as a basis for discussion rather more than for criticism. Somervell's book may not supply altogether satisfactory answers to these questions; but it provides the reader with fresh and stimulating thinking directed toward the establishment of a more viable industrial order.

University of Houston

JOHN P. OWEN

Industrial Psychology. By Thomas Willard Harrell. New York: Rinehart & Co., 1949. Pp. xvii, 462. \$4.25.

This is one of the more informative books on industrial psychology, reflecting both the author's research and the broadening scope of psychology applied to industry. The author is acutely aware of the shifting emphasis: "As recently as 1930 it was assumed that the importance of psychology in industry was largely confined to the use of tests; today we view its function as the analysis of human relations in industry."

The book is divided into three major subdivisions. "Individual Differences" starts out with an analysis of same and deals with selection methods, including two chapters on Personnel Tests. The test chapters which are frequently strong points in industrial psychology tests are not in this text. The author critically analyzes the application of tests like the Rorschach and personality types but

barely describes other types. The section on "Human Engineering" discusses Work Methods, Training, Fatigue and Conditions of Work, and Accident Prevention. As illustrative of blind spots in industrial psychology, the sections on Work Methods and Training have little of psychology and employ largely non-psychological sources. On the other hand, some excellent psychological studies are cited in the Fatigue and Accident Prevention sections. The third major section, "Human Relations," has some splendid data on motivation, attitudes and job satisfaction, morale and monotony. The sections on Labor Relations and Supervision contribute little.

The work is helpful mainly for the citation of many studies, but that in itself constitutes a major weakness. With the mushrooming of industrial psychological studies, considerable critical evaluation is necessary. The author fails to do so in too many instances. Some of his sources are old with material which has long since been replaced. For instance, the author states that "In the United States the most dangerous industries are mining, quarrying, and construction, whereas the safest are textiles and machinery." His source is an English book written in 1936. The batting lineup has shifted since then. With so many sources quoted, the author or publisher further bothers the serious reader by placing sources at the end of each chapter.

A final word of adverse criticism comes back to the status of industrial psychology as reflected in this work. There is too much guess work, too many categorical statements without adequate evidence, too many studies of dubious reliability.

All of the above is said with a thorough admiration for the excellent work being done in industrial psychology, the group responsible for a major share of today's information on behavior factors in industry. A large number of significant studies are reported in this work along with the not so significant.

University of North Carolina

R. P. CALHOON

Labour Relations in London Transport. By H. A. Clegg. Oxford: Basil Blackwell; New York: Augustus Kelley, 1950. Pp. viii, 188. \$2.50.

The development of the public corporation as an important institution in a number of countries raises many questions, theoretical and practical, and Mr. Clegg's book performs a useful service in giving the history of labor relations in one such corporation which has been in existence since 1933. This careful and detailed study offers ample warning both against the assumption that public ownership will necessarily bring improvement in relations between employer and employees and the kind of judgment which ascribes all the present difficulties of the British coal industry to nationalization.

Much of the value of the study consists in the details which point up the special features and problems of the transportation field. There are also numerous references to the personalities involved and to the general historical background of the period covered. The pattern set for measurement and appraisal leads the interested reader to hope that similar studies will follow and provide a basis for comparison and additional guideposts for future action. This hope sharpens one's

regret that the lack of a general bibliography and of an index makes it difficult to follow up references in this volume.

Sweet Briar College

GLADYS BOONE

Administration: The Art and Science of Organization and Management. By Albert Lepawsky. New York: Alfred A. Knopf, 1949. Pp. xii, 669, xxi. \$6.50.

In the years ahead this nation is destined to have more and more people interacting with increasing speed in a growing number of affairs. This increased tempo of human activity makes systematic behavior mandatory. System is the rationale for administration, management, and organization.

No doubt Professor Lepawsky has long understood this. His multiple aim in writing about administration is (1) to demonstrate its timelessness and universality, (2) to explain its importance in human affairs, (3) to develop workable methods and techniques, (4) to uncover unsound practices, (5) to stimulate persons with administrative potentials.

These aims are admirably attained through a simple organization. The book opens with a chapter on the significance of administration. Part I, entitled the art of administration, contains six chapters and discusses administration in terms of functions, policy, history, and the American scene. Part II, the science of organization, consists of six more chapters pertaining to problems, types, and processes, as well as the geographical locale of organizations. Part III comprises six chapters related to the techniques of management in such areas as personnel, budgeting, financial control, planning, research, reporting, public relations, and legal procedures. A final chapter considers the sixty-four dollar question: Is administration a science or an art?

Basically this is a book of readings. Actually it is much more. About three hundred scholars and administrators ranging from Aristotle and Socrates to Wilson and Stalin have something to say about administration, management, and organization. The author skillfully weaves together what others have said with his own introductory and summary threads so that the whole fabric is an exciting piece of work. It stands on its own feet for teaching purposes as a useful combination of textual plus modified case material.

This book has a strong public administration flavor despite a careful balance of selections from business, government, and society. It merely demonstrates the head start which public administrators have over business administrators by way of scholarly investigation and writing. Once again it raises the challenge of educating men and women for responsible business leadership. Actually, colleges of business administration have barely scratched the surface in trying to learn something about the job they profess to do. Readers of this book should recognize that the field is wide open.

In 1887 Woodrow Wilson wrote, "It is getting to be harder to *run* a constitution than frame one." Essentially this distinguishes between "how to do" and "what to do." Primarily educators have been concerned with the latter. This is no longer enough. The search for system is a search for mature leadership—a leadership that is trained in how to get things done through people within the democratic

framework. Therein lies the real challenge for higher education and the *raison d'être* for this book.

Michigan State College

KARL A. BOEDECKER

Industrial Management in the U. S. S. R. By A. Arakelian. Translated by Ellsworth L. Raymond. Washington: Public Affairs Press, 1950. Pp. 186. Paper \$3.00.

This monograph is one of a series on Current Soviet Thought, prepared under the auspices of the Joint Committee on Slavic Studies of the American Council of Learned Societies and the Social Science Research Council. This series is directed chiefly to translating important Russian materials concerning matters of contemporary interest. This particular monograph was first published by the Moscow Worker Press in 1947 and issued by the Economics Institute of the Academy of Sciences of the U. S. S. R.

The chief contribution of this publication is its detailed description of the organization and management of Russian industry. Apparently, the producing unit, or "enterprise" as it is called in the Russian system, encounters all the problems of an American plant or establishment and attempts to solve them in much the same way. Time and motion study, called the Stakhanovite movement, is relied upon to set production standards, quotas and piece rates. Incentives, in the form of bonuses and competitive awards, are used to "overfulfill progressive production norms." A policy of decentralization of the control of production is being carried out, and local managers are given adequate staff assistance and full authority over personnel, including hiring, firing, disciplining, determining wage rates and paying bonuses. The labor union is an agency of the Communist Party and is made responsible by contract for the fulfillment of production and "profit" quotas. Nothing is said about labor's rights as to wages, hours, conditions of employment or protection against exploitation.

The individual enterprise keeps a complete set of books showing profits or losses, it buys and sells from other enterprises on the basis of contracts, it has a checking account at the bank, and it may borrow from the bank when in need of working capital. The enterprise also pays taxes on both its sales and its profits, and it may reinvest a portion of its profits or savings in the improvement or expansion of the plant. The present policy of decentralization is to let the industrial economy run itself; the role of the central government is to give direction and guidance and step in when the system gets out of adjustment.

Running throughout the course of this treatise is the concurrent disparagement of capitalism and praise of socialism. The author continually decries the capitalistic exploitation of labor, but offers no explanation for the high real wages received by employees of capitalistic enterprises. Capitalist competition is denounced and vilified, although socialist competition is praised and given much credit for raising production standards and increasing output. Not to miss any possibility for derogatory terminology, the author decries the keen, unbridled competition among our large companies, particularly those in the steel industry, but in referring to them cannot pass up the opportunity to use our opprobrium, "monopolies".

After all, the difference in the two systems of economic control has been adequately explained by Lenin who said, "essentially, the entire question of control amounts to who controls whom."

University of Alabama

E. H. ANDERSON

Money, Income, and Monetary Policy. By Edward S. Shaw. Chicago: Richard D. Irwin, 1950. Pp. xvi, 661. \$5.00.

Here is a prodigious book, in words and in content. Intended as a text, in certain respects it may be said to exceed that purpose to take on semblance to a critique and handbook.

Yet, a textbook of these dimensions is perhaps appropriate to the times. As the author himself might agree, the abuse of money and monetary-fiscal institutions persists in degree as much as ever, although in varying form. Several economic sectors appear unwilling to pay the price of stability and there is sore need for enlightenment. Particularly enlightening should be the emphasis placed by Professor Shaw on the inseparability of "the economics of money . . . from the economics of all other scarce goods."

The book comprises 25 chapters and is organized into three sections, with an introduction sketching the nature and meaning of money and the monetary system, and a concluding chapter on the prospect for monetary policy.

The first section examines the meaning of the supply of money and in development is quite unique. Presentation is focused around the relationships of assets held by households (firms and family units) and banks to the supply of money and it departs from the study of financial statements of monetary institutions and households. The general managing of earning assets (relative to liabilities) in effect represents the major determining element of money supply. Monetary behavior is analyzed through the loan and monetary and response coefficients. The loan coefficient states the relationship between a bank's capacity to buy earning assets per dollar of surplus cash assets. Therefore it is an important factor in monetary policy. Bank (commercial) earning assets purchased are governed not only by reserve positions and loan coefficients but also by other factors such as the supply of and demand for loanable funds in the case of nonbanks, and by estimates of marginal rates of return on securities to banks and nonbanks. These factors are subsumed under the response coefficient which in turn is one of the determinants of a bank's dealing in securities. It states the relationship between the changes in earning assets, and surplus bank reserves.

The total money supply is explained by means of a monetary equation based on the cash, earning assets, and the non-monetary claims of the system.

In section two, the student is most rigorously carried into monetary theory and policy. The theory of money and money flows is treated eclectically, as are also the theory of interest, the theory of general prices of goods and securities, cyclic-trend characteristics of the system, and monetary-fiscal policy. Monetary theory is well woven in with policy through both the income-expenditure and transactions approaches to the value of money and levels of business activity.

A complementing explanation of the expansion and contraction processes in

terms of both saving-investment and transactions "identities" removes to some extent the restrictiveness of the income-expenditure approach when applied alone. As Knight and Boulding have shown, consumption, saving, investment, and similar income equations or "identities" are really increments and decrements in assets. As such they are not the basal quantities that assets are. To get at the inseparability of the economics of money and of all other scarce goods it is necessary that the theory of the household (including the firm) be integrated with monetary theory. Professor Shaw has advanced some in this direction. But his theory fails to supply the bridge, for in the final analysis he turns away from assets to income-expenditure identities solely. Thus the necessary transformation from sets of individual ordinates to the ordinates of the macrosystem may not be achieved. Herein lies a major weakness, a criticism which is to be extended to several contemporary texts.

The third section is on international monetary relations. It comes up to the high quality of the previous chapters. Space permits mention only of the development of net foreign investment as one of the independent variables of the income equation and its relation to the money equation. Net foreign investment is treated chiefly from the standpoint of the "endogenous cyclic changes." These changes impart a significant instability to the world economy and are a factor in creating a "chronic imbalance in the international accounts."

A few brief comments on exposition and content are appropriate. Highlights are: the excellence of graphic solutions, algebraic, and other presentations; the middle road integration of functional finance into monetary policy; the author's pessimism about open-market operations and the interest rates; the treasury debt policy; the proposed reforms in banking and policy; the critique of Keynesian and Wicksellian monetary theory; and others too numerous to mention.

A few suggestions for later improvement seem pertinent. There is need for an integrated description of the banking system in the United States and a chapter on the history of banking before 1914. On page 164, it is not clear whether B stands for oa or for ob , or either. On pages 170-171, it is not determinable whether reference is to new or to issued and outstanding securities. Surely, it must be the new, since only they could lead to an increase in brokers' loans. Of course, customers may draw against their balance at brokers, assuming margin trading and a bull market, but that is another matter.

$$R_n^b = PT_n^b$$

On page 336, presumably $R_n^b = PT_n^b$, but the author fails to indicate the derivation of PT_n^b and hence equation (13) on the following page may give trouble to the student. On page 451, the subscript 1 has dropped out after LL in the printing.

To conclude, the indifferent student will not be happy with this text; but to the good student it offers a welcome and fruitful experience.

Emory University

ERNST W. SWANSON

Creation of Income by Taxation. By Joshua C. Hubbard. Cambridge: Harvard University Press, 1950. Pp. xi, 239. \$4.00.

In this volume Professor Hubbard makes a real contribution to the literature of public finance. His central thesis is that it is possible through taxation and the consequent expenditure of tax revenues to increase the community's propensity to consume during periods of unemployment. The resulting change may bring about increases in the community's income during succeeding periods of time. Mr. Hubbard relies largely upon the Keynesian analysis of income determination. In his analysis the probable effects resulting from the use of different types of taxes and various policies of spending and lending the tax revenues are considered together with the probable impact of such policies upon both consumption and investment. The growth of the community's income through the operation of the multiplier is examined. The use of taxation as an income creating device is contrasted with results obtainable from the application of monetary, anti-trust, and deficit spending policies and an integrated program which provides for the use of all these methods is suggested. The study concludes with a critical examination of certain generally accepted principles of public finance.

Economists who are interested in methodology will admire the theoretical approach used by Mr. Hubbard. He begins by reasoning carefully from a limited number of assumptions. The assumptions then are modified or eliminated in order to bring the theoretical argument closer to reality. While the assumptions may be challenged, it is difficult to attack the general method used to reach the conclusions. From his theoretical analysis, Mr. Hubbard concludes that even though income creation by taxation "is not suitable as a method of smoothing the cycle," it offers the most promising solution to the problem of underemployment equilibrium. He suggests that deficit spending and monetary policy offer the most satisfactory solutions to the "minor business cycle." But monetary policy is considered to be "not sufficiently effective in all depressions to initiate recovery." Moreover, income creation by taxation is preferred as a solution to underemployment equilibrium over deficit spending because of the difficulties which the latter policy encounters in connection with the growing public debt and subsequent burden of interest charges.

Any volume which offers a program for the alleviation of the overall problem of underemployment is likely to be vulnerable to attack from many directions. The most vulnerable point of Mr. Hubbard's analysis is associated with the probable impact of the growing tax burden upon the incentives necessary to a free enterprise economy. The author admits this weakness but is hopeful that the danger may be mitigated through an effective anti-trust program and long-run shifts in the community's propensity to consume. Other economists may feel that the analysis has additional points of weakness. It is possible to deny the entire theory of secular stagnation and thus contend that the problem for which Professor Hubbard has devised a solution simply does not exist. Those who accept the stagnation theory may dispute the relationship between major and minor business cycles which is inherent in his analysis. Even accepting the problem which Mr. Hubbard formulates, one may argue that long-run full employment is obtainable by monetary management, and consequently it is unnecessary to embark upon a broad program to create income by taxation.

University of Florida

JOE S. FLOYD, JR.

Morgenthau, the New Deal and Silver: A Story of Pressure Politics. By Allan Seymour Everest. New York: King's Crown Press, 1950. Pp. x, 209. \$3.50.

With a brief historical background of the position of silver in the United States down to the inauguration of F. D. Roosevelt, this book takes up in earnest at that point and gives a blow by blow account of what has happened to silver both in the United States and abroad during the next fifteen years or so. The passage of the Silver Purchase Act of 1934, the reluctant execution of the law by the Treasury, its effect upon China, Mexico and other countries, the conflicts between State and Treasury on diplomatic and monetary problems, the silver problem during World War II: these represent but by no means exhaust the topics covered. If anything, the book loses a part of its force from the author's efforts to give too complete a story. Mention is even made of the difficulties which President Roosevelt had in finding silver frames for the photographs of himself he was wont to distribute. Despite such digressions, it is a depressing narrative of political chicanery, deals, pressures, and general immorality. The sharpest shafts are reserved for the Silver Bloc of the Senate. Mr. Morgenthau's part was largely that of resisting the Silver Bloc by every legal means. He emerges almost, if not completely, the white knight of the whole dirty mess.

The book contains much of interest to economic historians, monetary economists, and political scientists as well as possibly to some general readers. But certainly one of the main bases for interest in it arises from the chief source used in its preparation, namely, the reputedly fabulous Morgenthau diaries. This suggests virtually unlimited potentialities. Considering the number of pies into which Mr. Morgenthau stuck his fingers, think how many Ph.D. theses can be ground out on the basis of these diaries and how renowned and gallant a figure Mr. Morgenthau will emerge!

University of Florida

JOHN B. MCFERRIN

The Monetary and Banking System. By George Walter Woodworth. New York: McGraw-Hill Book Co., 1950. Pp. xvi, 588. \$5.00.

This book is intended to serve primarily as a text. For a one-semester course, the author recommends the omission of certain chapters; for a two-semester course, he recommends the use of supplementary material.

While much of the subject-matter of the book does not differ greatly from that found in other texts in its field, it does offer a fresh approach. It stresses the "functional and operational aspects of the financial system, the relations that exist among the several parts, and its place in the entire economic system" (p. vii). The objectives of the economic system are: "(1) high-level employment, (2) stable employment and production, (3) equitable distribution of income, and (4) a reasonable degree of progress with a rising standard of living" (p. 562). Setting up such broad objectives serves as a criteria for judging the relevance of subject-matter and the soundness of monetary and fiscal policies.

The author covers some of the more fundamental topics at an elementary level thereby reaching the Federal Reserve System at an early stage. By this time the student is expected to have acquired a conception of the framework of the system

so that the topics can be treated more thoroughly thereafter. He then considers such topics as bank notes, deposits, clearings, loans and investments, and liquidity. Eight chapters are devoted to the study of factors and forces determining the price-level—the last two of which deal with changes in prices and modern theories of prices and production, in which business cycle and Keynesian theories are considered. Two chapters are devoted to international finance; one to the rate of interest; six to different aspects of the money market, and the final chapter to fiscal and monetary management, in which he summarizes his economic objectives, and fiscal and monetary policies necessary to achieve even a moderate degree of stability at or near levels of full employment. "This goal can be realized, if at all, only when the executive establishment of the government is granted authority by Congress to adjust flexibly all programs relevant to economic stabilization" (p. 577).

The author takes a strong stand for free enterprise. He thinks that industries can be divided into two groups; one composed of monopolies, and the other of those in which competition can be preserved. In the latter, monopolistic conditions should be crushed and a free market maintained with a minimum of regulations (p. 337). This appears like over-simplification, and one may well doubt whether industries can be *so nicely* separated into two such groups. Besides, the theory and practice of price support in a few industries, notably in agriculture, is widely accepted. The theory back of this seems to be that price rigidities in the larger industries are such that the prices in certain others, subject to extreme competition, need support in order to keep the price system in balance.

Dr. Woodworth regards the tendency to over-saving as a surface evidence of a faulty distribution of income. He considers such measures as graduated income tax, designed to correct this distribution as helpful but recognizes that the application of such measures is limited by their effect on the profit motive (pp. 338-39).

The author presents a realistic view of the financial system which is well-balanced. It is illustrated with an abundance of current and relevant data. While it is designed for a college text, it should provide profitable reading for anyone seeking information in the subject.

University of Tampa

ROY E. GEETING

Capital Imports and the American Balance of Payments, 1934-39: A Study in Abnormal International Capital Transfers. By Arthur I. Bloomfield. Chicago: University of Chicago Press, 1950. Pp. xvii, 340. \$6.00.

In writing this book the author has prepared, as the subtitle indicates, "A Study in Abnormal International Capital Transfers." This study is, then, a case history with attention focused on the high capital inflows to the United States from 1934-39.

These capital inflows were, as the writer points out, to a considerable extent the dominant factor conditioning international monetary developments during this period. Consequently, major emphasis is placed on the techniques used in effecting the transfer, and the effect of that transfer on the operation of the ex-

change market, on international stock market speculation, on the operation of exchange stabilization funds, and on attempts at gold sterilization. In analyzing the interrelationship between these developments, the author has made a notable contribution to economic thought and to a better understanding of governmental policy during the 'thirties, especially where that policy was concerned with international capital movements.

The attempt to make a statistical appraisal of capital movements is not always successful as the essential data are not available in sufficient detail. While this may be considered a weakness it is a shortcoming of analytical tools—not of the analyst—and has been overcome admirably by resort to logical analysis. While considerable attention is devoted to the causes, effects, and alternative methods of dealing with the component parts of the capital transfers, one cannot but wish that more attention had been devoted to the general question of "chronic dollar shortages."

Although this is primarily a historical work much of its value extends beyond the historical problem under study. Since it, admittedly, deals with an abnormal movement of capital which may not occur for many years to come, it could hardly be called a guide to future international monetary policy. But the emphasis on factors underlying governmental policy in the 'thirties should make it valuable for future policy makers as well as students. As the author indicates, during the decade of the 'thirties the accepted economic doctrine pertaining to capital transfers made a complete about face. Whereas, at the beginning of the period relative freedom of international transfers was considered essential for international economic welfare, at the end, almost complete regulation of such transfers were generally accepted as the desirable tools of economic policy.

In addition to serving as an indication of the approach to be used in formulating international monetary policy, this book should prove to be a valuable addition to economic literature for the teacher of international finance. The chapter groupings are such that they may be easily used for collateral reading assignments which should contribute greatly to the students' understanding of the subject and its many implications for domestic governmental policy.

University of Florida

C. A. MATTHEWS

A Financial History of Tennessee Since 1870. By James E. Thorogood. Nashville: Tennessee Industrial School, 1950. Pp. x, 245.

A financial history of a state covering a period of 80 years must sacrifice either thoroughness in the treatment of major shifts in policy or inclusiveness with regard to minor changes. The author of this book has chosen the first alternative. As a result, the book is primarily an exhaustive outline of the changes which have taken place in the Tennessee financial system from 1870 to the present time.

The general pattern is familiar. It revolves around the continual expansion of governmental activity (in accordance with the Wagnerian law) and the fiscal problems created thereby. Specifically, it consists largely in the gradual abandonment of the traditional source of revenue, the general property tax, leaving this to the local units, and its replacement by excises in some form. On the expenditure

side, changes have been in the nature of responses to the demands for more and better public services. Overly enthusiastic response at times has plunged the system into the quagmire of excessive debt.

Although the plot may not be evident, the "villain of the piece" is not difficult to find. It is certainly the 1870 Tennessee Constitution which remains in effect today. While there is no doubt that the rigidity imposed by this ancient instrument has had significant detrimental effects on the financial structure over the period, these effects seem to be overemphasized. A comparison of the Tennessee experience with that of other states not having such restrictions perhaps would reveal that the constitutional strait-jacket has not been as important as it has sometimes been made to appear.

This book relies almost exclusively upon official sources for its data, and consequently reports only "from the record." Underlying political conflicts and stresses which have certainly been of major importance in shaping the financial history of the state are scarcely mentioned. Can the advent of railroad taxation in the early years of the period be adequately discussed without reference to the powerful agrarian revolt? Do not the "behind the scenes" manipulations during the Horton regime deserve more than mere notice? Was not the Shelby County influence over the last 20 years important enough to warrant mention? Have not intersectional conflicts in this three-division state been of some significance?

Financial histories seldom make exciting reading. This book is no exception. It is, nevertheless, in spite of the limitations outlined above, a workmanlike job which will serve as a valuable source of information for interested students and public officials.

University of Tennessee

JAMES M. BUCHANAN

History of the Bank of Ireland. By F. G. Hall. Oxford: B. H. Blackwell, 1949. Pp. viii, 429. 18s.

This book is a reprint of a part of a de luxe volume entitled *The Bank of Ireland, 1783-1946*. It is a work of fine quality written under practically ideal circumstances. The author was invited by the Court of Directors of the Bank of Ireland to undertake the task of writing a history of the bank. Accordingly, the official correspondence, minutes, and records of the bank were made freely available to the author. In addition, he was given the unqualified cooperation and assistance of the officers and staff of the bank as needed. As a result, this book can be regarded as an official history in the true sense.

The bank was established in 1783 with a constitution similar to that of the Bank of England. At this time Ireland had a separate currency which was expressed in terms of pounds, shillings, and pence but which was distinct from the English currency. Like the American dollar when first adopted by the United States, the Irish pound was merely a money of account at this time. The English currency constituted the real circulating media.

From this beginning, the author traces the development of the currency and of the banking system to the present time. For this purpose, he required nine ably written and carefully documented chapters. The profuse use of copies of

official documents, correspondence and illustrations of one kind or another add to the interest and attractiveness of these chapters.

Relegated to twelve appendices are the data required to support and complete the history. One group of the appendices is devoted to the correspondence connected with the Abortive Bank Project of 1719-1721, the attempted sale of Quit rents in 1798, and the government relief measures following the banking crisis of 1880. Another group contain statistical series of interest rates, note issues, dividends paid, and balance sheets of the bank. Still another show the lists of officials of one type or another from 1783 to 1946.

One might expect that a record so detailed as this would be of only limited and local interest. But this is not the case. The author's broad knowledge of the currency and banking systems of other countries enabled him to contrast and compare the Irish practice with that of other countries, particularly that of England and of the United States. His skill in doing this lifts the book from factual boredom and makes it an interesting and valuable contribution to this field of knowledge.

University of Alabama

JAMES HOLLADAY

First Course in Probability and Statistics. By J. Neyman. New York: Henry Holt and Co., 1950. Pp. ix, 350. \$3.50.

The primary purpose of this book, as stated by its author, is to present a one semester basic course in probability and statistics. Enough additional material is given so the instructor has some freedom of choice.

This book is divided into five chapters. In the introductory chapter the scope and theory of probability and statistics is presented with an attempt being made to show the interrelationships between the two. To do this in just a few pages the author well indicates that "it was necessary to anticipate a number of definitions and to appeal to the reader's intuition." The reviewer found his powers of "ready apprehension" somewhat taxed in this chapter, even though he possesses a reasonably adequate mathematical background.

A substantial part of the book is given over to an "elementary presentation" (author's words) of the calculus of probability. Chapters two and four develop these concepts in a quite acceptable manner. Illustrations from every day life, such as distributions of cards in bridge hands, were used to shed light in many places. Geneticists will unquestionably find many worthwhile ideas contained in Chapter III. It is a discussion of some of the probabilistic problems of genetics.

The most fundamental and informative chapter is the last one. The author presents in this chapter the elements of the theory of testing statistical hypotheses. He carefully distinguishes between what constitutes an hypothesis and a mere statement. He defines a statistical hypothesis as consisting of "every assumption concerning the frequency functions of observable random variables." Various tests of statistical hypothesis are presented such as the lambda-principle, and the use of the normal approximation (in testing hypothesis related to binomial variables).

This book is unquestionably a most able treatment of the general scope of

probability and statistics. This reviewer did not find any glaring errors of theory in it. However, according to Neyman, an assumption is made that the "reader's mathematical education is limited to high school algebra." It is very questionable in the opinion of the reviewer how many undergraduate college students would be able to follow Neyman's mathematical approach. In fact the mathematical symbolism alone will frighten many students (see page 42, 62, or many others). It is well to point out though, that "certain sections of the book are marked with stars, indicating that with a less proficient class, these sections can be omitted without disrupting the continuity of thought."

This book has many virtues, particularly for the student with the mathematical mind. There are a series of problems given at the end of many sections to illustrate the applications of the theories presented. Four of the chapters have a list of helpful references which will enable the more energetic and mature student to find more readily supplementary reading material. Numerous illustrations of problems on probability are taken from fields of general experimentation, bacteriology, social studies, astronomy, entomology, etc. Tables, graphs and diagrams add to the usefulness of the book.

Clemson Agricultural College

WEBER H. PETERSON

Some Theory of Sampling. By William Edwards Deming. New York: John Wiley & Sons, 1950. Pp. xvii, 602. \$9.00.

This latest massive volume by Dr. Deming is a worthy addition to the short but growing list of sampling books available in English. The mathematics of *Some Theory of Sampling* will be scrutinized in other reviews; this review will be confined to a commentary on some of the aspects which are likely to be of more immediate interest to economists. Since economists will not generally be offering specialized sampling courses in which this book would be considered for use as a text, their interests will be mainly in the book's usefulness to them in their own research. While the book is not directed to economists, as economists, it is concerned largely with sample surveys, which have in recent years been in the area of study in which statisticians and economists have worked most closely together. Hence the importance to the economic analyst of the recent appearance of Dr. Deming's book.

There are five main parts of the book: (i) specification of the reliability required in the results of proposed research; (ii) some elementary theory for sample design; (iii) some theory for analysis and estimation of precision; (iv) applications of some of the foregoing theory; (v) some further theory for design and analysis.

The author comments in his Preface that, "Graduates in mathematical statistics, when taking up practice, discover yawning gaps between theory and practice: the better their theoretical training, the wider the gap." The economist would add that not only mathematical statisticians, but economists as well, appreciate fully the width of the chasms, which are as wide in economics as they are in any field in which statistics is used. Deming's explicit recognition of the existence of such difficulties, and his fruitful attempts to provide solutions, are two of the features which will be of great value to the economist.

The book is written in a style which combines concise and rigorous mathematics with detailed references, almost discursive at times, to the rich experiences of the author and his colleagues, describing approaches they have used to unusual problems. Frequent digressions from the strictly theoretical development are effectively made without destroying the continuity of the main thought by setting them apart as *Remarks*, indented and in smaller print, but retained in the body of the text as a kind of high-powered footnote. These *Remarks* contain some of the most practically helpful and shrewd comments in the book.

Most economists will find the first three parts of the book of most value; the fourth part will probably be familiar, as it consists of previously published detailed descriptions of two major projects (wartime inventory of automobile tires, and population sample for Greece) in which Dr. Deming participated; the fifth part (and only the fifth part) may be heavy going for the economist who has not had some specialized training in mathematics or statistics.

Anyone who uses statistics in economic research will profit from the explicit discussions of such points as (i) the necessity for considering the procedure of estimation as part of the sample design; (ii) the importance of cost information in sample design and, particularly, the great value of cost data even when it is a fairly low accuracy; (iii) the case for preferring procedures *with known biases* if they result in sufficiently lower sampling variances. There are of course many other valuable points, enumeration of which is not possible in this space. This commentary will be successful, however, if it enumerates enough of them to reassure the economist that he need not be frightened either by the formidable size of this book or by the appearance of the word, "theory," in the title. Theory is, of course, present in generous doses, but there is a great deal more as well.

This book is a comprehensive treatment of modern statistical sampling theory, flavored and enriched by the almost unique variety of the author's experience, ranging from sampling the electoral lists of Greece to solving a problem of non-response among manholes (p. 13). The economist who is doing survey or other sampling work cannot afford to overlook *Some Theory of Sampling*.

North Carolina State College

F. E. McVAY

Social Aspects of Enterprise in the Large Corporation. By George B. Hurff. Philadelphia: University of Pennsylvania Press, 1950. Pp. 137. \$2.00.

It has long been recognized that enterprise in corporate form may possess many attributes which distinguish it from enterprise which is owner-administered. Despite such recognition, it has for many years been accepted practice in economic analysis to proceed in terms which have largely ignored these differences. Only within the past two or three decades have the facts as to the extent of corporate growth and control been brought so forcefully to light that they can be overlooked only by those for whom facts are inveterately irrelevant. Even yet, however, there is reason to believe that we have perceived only superficially what these conditions signify for both analysis and policy-making.

The author of the slim volume here under review has entered the discussion of the nature of corporate enterprise with modest aims. His preface indicates that

the work is of a selective, limited nature and that it is directed toward an audience of business leaders, judges, and legislators rather than toward professional economists. It is the reviewer's opinion, however, that economists who have not kept abreast of developments in this field will find the time spent in study of this little book very rewarding.

The material presented is limited, in the main, to a review of disclosures made by earlier investigations on such points as the extent of corporate dominance, the division of authority and function within the quasipublic corporation, the nature of human relations in corporate enterprise, and the position of the board of directors. The book is more than mere summary, however, for there is sharp comment from the author to point up differences of interpretation from those of the earlier studies. His strictures on still-prevalent misconceptions as to the nature and social functions of business enterprise are especially revealing. It is to be hoped that he will soon pursue his own intelligent suggestions for further research in these areas where current understanding is yet lamentably inadequate.

This reviewer must express his distaste at the failure of the writer of the jacket comment to show restraint equal to that of the author. There is, for example, simply no justification for the statement that this book "presents a wealth of revealing case histories." Such gross exaggerations do no service to the reader, the author, or the publisher.

The University of Texas

CAREY C. THOMPSON

Urban Mortgage Lending by Life Insurance Companies. By Raymond J. Saulnier. New York: National Bureau of Economic Research, 1950. Pp. xxi, 180. \$2.50.

Life insurance companies in the United States hold assets at the present time in excess of \$60 billion. This tremendous accumulation of assets is an outgrowth of the level-premium method of operation followed by the old-line life insurance companies. Eighty-five per cent or \$55.5 billion of these assets are held as an offset to liabilities in the form of legal reserves. These reserves bear interest at a rate guaranteed in advance by the insurance companies and the combination of declining interest rates and a phenomenally increasing flow of new funds has created major investment problems for the companies.

In an effort to develop suitable outlets for funds which within the last 20 years have tripled in volume, the life insurance companies have entered into a variety of lending activities. This study by Saulnier is a survey of the activities of the companies in one of the major areas of investments, since urban mortgages, as accurately as can be determined, account for approximately \$12 billion or 17 per cent of total assets.

The book begins with an appraisal of the role of the life insurance company as an investor in the urban mortgage market, giving consideration to both the relative importance of the funds invested by life companies in that market and the relative importance of the urban mortgage among life companies' earning assets. There follows a general discussion of the legal framework within which life companies lend on mortgage security. This section is very sketchy and does

not purport to be a compendium of state laws affecting insurance company mortgage lending. A chapter on urban mortgage lending techniques is included, which is nothing more than a brief but enlightening comparison of the correspondent versus branch office type of organization. Another chapter, mainly statistical, traces the changes in mortgage lending terms, e.g., loan-to-value ratios, repayment requirements, and interest rates, from 1920 through 1946.

The major contribution of the book, from the standpoint of insurance company management, is represented by the findings and conclusions contained in the last two chapters. Chapter 5 is concerned with one of the central problems of mortgage lending—the level of operating costs, while Chapter 6 is devoted to loan experience, using as criteria (1) foreclosure rates, (2) gain or loss ratios, which are the ratios of the amount gained or lost on the operation of foreclosed properties of different types to the amount originally invested in the loans and to the amount the lender had invested in the property at the time of foreclosure, and (3) loss rates, which are the differences, for various classes of loans and properties, between the yield that was expected when the loan was made and the yield actually realized. Actually, the loss rate is nothing more than the original interest rate corrected to reflect changes in interest rates and losses or gains on loans that eventually were foreclosed.

The study reveals that the gross yield for 1947, the latest year surveyed, ranged from 3.85 to 4.35 per cent in the various companies. This was a decline from the yields of 4.25 to 4.75 per cent in 1945 and 4.05 to 4.55 in 1946. To be charged against the gross yield are certain expenses incurred by the companies in their mortgage lending. These expenses include originating fees, paid to correspondents and other outside agents, servicing fees, paid to correspondents or credited to a branch office, and home office administrative expenses. Although it is difficult to generalize, it appears that originating costs typically amounted to about 1.10 per cent of the original amount of the loan, servicing fees accounted for 0.45 per cent of the outstanding loan balance, and home office administrative expense averaged 0.25 per cent of the loan balance. If the acquisition cost of 1.10 per cent is amortized over the life of the loan, which surprisingly averaged only five years, the annual cost would be 0.92 per cent of the loan balance.

Before the net yield can be obtained it is necessary to make an allowance for losses. Saulnier's investigation discloses that under the most favorable conditions and with relatively high grade mortgages it is necessary to set aside at least 0.25 per cent of the loan balance per annum as a loss reserve. The result is that during 1947 the net yield ranged from 2.90 to 3.50 per cent. As might be expected, companies with the largest portfolios tended to have the highest yields, primarily because of their lower expense ratios.

The book should prove to be a very valuable guide to the investment policy of insurance companies. It should likewise be welcomed by teachers, students and all others who aspire to have an understanding of the investment problems and practices of life insurance companies.

University of North Carolina

DAN M. MCGILL

Financing the Farm Business. By I. W. Duggan and Ralph U. Battles. New York: John Wiley & Sons, 1950. Pp. viii, 354. \$4.00.

In this day of high capital requirements in agriculture, it is extremely difficult for a young man to obtain sufficient capital to begin farming either as an owner-operator or tenant. Thus, this textbook, which is designed to cover the important financial problems that confront young farmers, is a welcomed addition to the few texts already existing on the subject of agricultural finance. The authors have had long experience in the field of farm credit, and they are well qualified to write the text.

The book is divided into two parts. Part I covers the "Principles of Farm Financing," and occupies three-fifths of the book. Both short-term and farm mortgage credit are discussed. A chapter on credit instruments, although it deals with a subject extremely difficult to present in elementary, nontechnical language, is nicely done. An added feature of the book is the inclusion of a chapter each on the subjects, "Transferring the Farm Business from Father to Son" and "Provisions of a Sound Farm Lease."

Part II discusses the "Sources of Agricultural Credit." As the authors state in their preface, this part of the book attempts "to describe objectively the significant features of the most important institutions that lend money to farmers and to their cooperative organizations." This reviewer believes they succeeded in their objective.

The text is well written. An outstanding feature is the simplicity of the language used, which adapts it to both high school and college use. It will also furnish beneficial reading to those persons interested in the problems inherent in refinancing our farms once each generation.

Virginia Polytechnic Institute

W. L. GIBSON, JR.

STATE REPORTS

ALABAMA

During the third quarter of 1950 Alabama attained a level of economic activity unprecedented in the state's peacetime history. In most lines of activity the recovery from the slump of 1949 had become so pronounced by May 1950 that near-boom conditions prevailed. Thus the Korean episode came at a time when the state's economy generally was operating at very high levels and when there was relatively little slack to be found in manufacturing facilities.

At the end of August 1950, industrial production, as indicated by the composite index of industrial activity prepared by the University's Bureau of Business Research, had reached 229 per cent of the 1935-39 average year. This level was 14.1 per cent above the pre-Korean month of May and 43.6 per cent above the postwar low of July 1949. August production topped the previous postwar peak of December 1948 by 12.5 per cent. Comparison reveals that Alabama's industrial production has undergone a more rapid growth since the summer of 1949 than has that of the nation as a whole. Alabama's steel industry has been operating at particularly high levels during the past year; it was operating at 104 per cent of capacity during the third quarter of 1950. Operations in steel for the nation during the third quarter ran at about 101 per cent of capacity.

Steeply accelerated construction activity has also characterized the state's economy throughout 1950. The value of building contracts awarded during the third quarter was 8.7 per cent above the second quarter and 57.3 per cent higher than the corresponding period a year ago.

Total nonagricultural employment (excluding construction) during the third quarter rose 2.4 per cent above the level of May 1950. Most of this expansion took place in manufacturing employment. The third quarter estimate for manufacturing employment was 4.2 per cent above that for the second quarter and 6.5 per cent above that of a year ago. Employment in nondurable goods industries expanded more rapidly (8.7 per cent) from the third quarter of 1949 to the third quarter of 1950 than was the case in durable goods industries where the expansion was 4.3 per cent. However, it appears that, on the basis of preliminary figures, this relationship has reversed in more recent months; third quarter, employment in durable goods industries was up 4.7 per cent over that for the second quarter, while the expansion for the same period in nondurable goods industries was 3.6 per cent.

Rising prices reflect the increasing tightness in the state's economy. The cost-of-living index for Birmingham for August 15, 1950 reached 177.7 per cent of the 1935-39 average year. This represents an increase of 5.1 per cent since May, and was only 0.9 per cent below the postwar peak figure of August 1948. That the rise in retail prices has been extremely rapid is shown by the fact that the August index was 6 per cent above the postwar low month of April 1950 when the index stood at 167.7. Thus the annual rate of increase since April has been 18 per cent. Farm prices received by Alabama farmers have had an even

more spectacular rise. They have risen 17.5 per cent from May to August and are only 14 per cent below the postwar peak of December 1947. By the end of August they had risen 25 per cent above the low point touched in December 1949. If the rate of increase since the beginning of the year continues, farm prices will have risen 40 per cent during 1950.

Collections from state-administered taxes during the fiscal year ended September 30, 1950 amounted to \$95,168,834 which was 0.3 per cent less than the total for 1948-49. Collections for the last six months of the fiscal year 1949-50, however, give some indication that state revenues are being favorably affected by the rising tide of economic activity. Tax collections for the last six months of 1949-50 were 4.7 per cent ahead of those for the corresponding period of 1948-49.

University of Alabama

LANGSTON T. HAWLEY

FLORIDA

Data on income produced in the various states which was recently released by the U. S. Department of Commerce provide some startling contrasts with the 1919 figure compiled by the National Bureau of Economic Research. Over the 30-year period, 1919-1949, Florida's income increased from \$380,000,000 to \$2,948,000,000 or some 676 per cent compared to a gain of 226 per cent in nine southeastern states as a group and 198 per cent increase for the United States. As a result of this spectacular gain, Florida's per capita income exceeds that of any other southern state.

Furthermore, Florida was the only state in the region which derived a smaller share of its increased 1949 income from manufacturing than it did in 1919. In fact, Florida derived a smaller share of its income from this source in 1949 than any other southern state. This in turn reflects the huge increases in farm income as well as in the trade and service industries. The spectacular success of the citrus concentrate business in the past three years has climaxed 30 years of growth in fresh and canned citrus, vegetables, truck, and cattle raising. Likewise, the growth in the tourist business has been speeded up since World War II as evidenced by the increase in accommodations. Reports of the Florida Hotel Commission listed 370,212 rooms available for transients in March 1946 as compared to 513,995 in 1950.

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The 1949-50 crop prospects for Florida were curtailed by storm damage in October. Citrus losses were expected to amount to 3,000,000 boxes, with grapefruit losses running as high as 20 per cent of the crop in some areas. Wind and water damage to truck crops required extensive replanting over a 10-county area. About 25 per cent of the 26,000 acre sugar cane crop was also damaged just as harvesting was beginning.

* * * * *

An interesting new development in governmental planning that may have a "long-run" impact on Florida's economy was the recent appointment of a Citizens Committee on Retirement. The function of this committee will be to

develop and coordinate plans and facilities, both public and private, to attract to Florida the increasing number of persons retiring from employment each year.

University of Florida

C. H. DONOVAN

LOUISIANA

Louisiana business activity for the first eight months of 1950, for most lines, showed gains over the same period for 1949. Out of the 33 lines of business for which information is available, 27 showed increases; these gains in business activity were led by substantial gains in building permits, building contracts, and industrial electrical power consumption. Gains of lesser importance were registered in building materials, auto supplies and accessories, wholesale hardware, and life insurance sales. Lines of activity recording declines from the 1949 level were women's clothing, shoe store, and men's clothing sales.

By late summer the over-all expansion caused by the rearmament program was being felt by the Louisiana economy. Almost all barometers of economic activity indicated substantial increases in August 1950 over the August 1949 levels. In the case of those economic indicators that are expressed in money value, a part of the increases was due to the price spirals during the early part of the mobilization program following the beginning of the Korean crisis. Increases in the volume of wholesale trade and in manufacturing sales at a rate considerably in excess of retail sales in August 1950 as compared to August 1949 indicated that the world situation was creating a threat of scarcities and causing inventory accumulations. Other barometers of economic life in Louisiana also registered significant gains in August 1950; some of these, expressed in money terms, such as building permits, bank debits, sales tax collections, and postal receipts, gained from 8 per cent to 65 per cent over the August 1949 level. Two measures of activity not expressed in terms of money value, freight car loadings and electric power consumption, recorded increases of 15 per cent to 20 per cent in August 1950 over the August 1949 levels.

Faced with the probability of an almost unlimited market for certain types of products in the foreseeable future, a market that will be available as a result of our long-term military program, Louisiana industries are expanding their capacity. At the last meeting of the Board of Directors of the Department of Commerce and Industry in September, more than \$27,500,000 in tax exemptions on new Louisiana industrial construction were approved. The largest of these exemptions went to the Continental Oil Company at Westlake for new construction valued at slightly under \$10,000,000. The Continental Oil Company at Westlake is building new crude topping, catalytic cracking, and gasoline recovery units. Other industries presently located in Louisiana for which exemptions were authorized for industrial expansion were: Ethyl Corporation at Baton Rouge (\$5,400,000) to increase tetraethyl lead production; International Paper Company, Springhill (\$1,947,000) for equipment to step up paper production; International Paper Company, Bastrop; and many smaller projects designed to expand capacity in consumer goods output. In addition to these expansions in productive

capacity, several other new industries are scheduled to contribute to the output of the state's economic system in the near future. The Mid-Continental Steel Casting Company is scheduled to start operations at its new plant in Shreveport at an early date, and it is estimated that approximately 200 workers will be employed. The Commercial Solvents Corporation will soon begin construction of its new \$1,900,000 nitrogen solutions plant at its location at Sterlington, Louisiana, where it already produces anhydrous ammonia. The Ideal Cement Company of Denver, Colorado, is building a \$500,000 cement storage plant at New Orleans on the industrial canal. Its facilities will include a packing plant and loading facilities as well as storage for 100,000 barrels of cement.

Statistics available in August indicated that the agricultural segment of the state's productive system found that prices for the products that it had to sell, for the most part, were above the levels of August 1949. Both the price of cottonseed and cotton in August as well as in the later fall months were above last year's level. Rice, corn, soybeans, and all classes of livestock had 1950 prices above the 1949 amounts; however, the price of butter, eggs, chickens, and baled hay were below last year's level. While the index of prices received by Louisiana farmers for agricultural products advanced from 272 to 291 (August 1934-July 1939 = 100) from July 15 to August 15, according to the Bureau of Agricultural Economics, the index of prices paid by farmers for all commodities, interest, taxes, and wages only advanced from 204.8 to 206.4 (1935-1939 = 100). On the pessimistic side, however, smaller crops, especially in cotton, may more than offset the optimism of higher prices.

Louisiana State University

W. H. BAUGHN

MISSISSIPPI

Mississippi state tax collections as of October 20 were maintaining themselves surprisingly well. Collections made by the State Tax Commission from January 1 totaled \$45.5 million as compared with \$46.6 million during the same period in 1949, or a decline of only 3.4 per cent. (Approximately \$250 thousand of these collections were made by the State Tax Commission for cities which have enacted a city sales tax under the 1950 enabling legislation.)

This is considered quite a good showing in view of the fact that Mississippi last year experienced an extremely bad cotton crop and the October 1 estimate for 1950 is somewhat under 1949 production. (Production in 1949 was 1,487 thousand bales as compared with a 1948 crop of 2,353 thousand bales and a 1939-48 average of 1,653 thousand bales. The October 1 estimate for 1950 is 1,400 thousand bales.)

Last year's crop failure is reflected in income tax collections which dropped from \$11.9 million to \$9.4 million or over 20 per cent. One million dollars of this loss has been recovered from increased collections at increased rates from the tax on beer. The retail sales tax is producing the same amount as last year.

Analysis of recently released data of the Bureau of International Revenue relative to special taxes reveals some interesting facts. For example, in Mississippi, a "dry" state, 2,064 retail liquor dealer licenses and 56 wholesale liquor

dealer licenses were issued in the fiscal year 1950. This represents 97 retail liquor dealers per 100,000 population. Fifteen states have a lower ratio of federally licensed retail liquor dealers to population, 10 of these having less than 50 per 100,000 of population.

University of Mississippi

DAVID MCKINNEY

NORTH CAROLINA

In the fall of 1950 North Carolina is harvesting its smallest cotton crop in 75 years. The crop will probably not reach 200,000 bales. Cotton production in the state was at its peak in the 1920s, when the crop exceeded 1,000,000 bales in each of three years. During the 1930s, under adverse price conditions followed by acreage control, the annual production declined to the approximate level of 600,000 bales, a level that was maintained during the war years. Following the war the crop showed clear signs of dropping to the level of about 450,000 bales. While the downward trend was interrupted by the larger product of 1948 and 1949, it is confirmed by the present crop. The extremely small product of 1950 is due to a combination of low acreage, unfavorable weather, and heavy infestation of boll weevils.

The long-range factors that are reducing North Carolina to a position of minor importance in cotton culture, include the difficulty of securing labor in the Piedmont section, where topography as well as the size of farms is not favorable to mechanical harvesting, and the high profitability of tobacco in the coastal-plain region. It is significant that this shift away from cotton is taking place in the state that consumes more raw cotton than any other, accounting regularly for one-fourth of the domestic consumption, or 2,500,000 bales annually.

Davidson College

C. K. BROWN

SOUTH CAROLINA

According to summary information just released by the Bureau of Agricultural Economics, farm real estate taxes in South Carolina are among the lowest in the nation and only about one-half the national average. This is true whether the tax is computed on a per acre or per \$100 of full value basis. The average farm real estate tax in South Carolina, for example, is 29 cents per acre, while it is 30 in Georgia, 31 in Mississippi, and 49 in North Carolina and Tennessee. Farmers in Florida pay on the average \$1.05 per acre.

A comparison of the tax rates per \$100 of full value, which represents the effective rate of taxation, reveals much the same situation. According to the bureau's summary the rate in South Carolina is 57 cents per \$100 of full value, while the comparable rate in North Carolina is 59 cents, in Mississippi 63, Tennessee 67, Georgia 79, and in Florida \$2.43.

While South Carolina as a whole is in a very favorable position with respect to the level of farm real estate taxes, in specific instances the situation is nothing less than deplorable. In any particular locality the tax rate may be almost anything from zero to infinity—the exact amount being left very much to happenstance.

Past studies have revealed that local inequalities are very common. Assessments within the same taxing unit have been found to vary from less than 5 per cent of full value to more than 100 per cent.

Farm tax data enter into the calculation necessary to determine "parity prices" and are considered by industrial groups seeking locations for plants. They are also of general and particular interest to farm people who have been attracted by agricultural opportunities in the South. If local governments in South Carolina wish to capitalize in full on the over-all favorable farm real estate tax position of the state, steps should be taken to equalize assessments as between individual properties.

Clemson Agricultural College

CHESTER R. SMITH

TENNESSEE

Industrial expansion in Tennessee during the first nine months of 1950 exceeded the amount of private industrial investment during the same period last year. It fell short, however, of the phenomenal record set during 1948.

The new industries involve a total investment calculated at several millions of dollars. Expansions, during the same period, of plants already in existence totaled in the neighborhood of \$20,000,000.

Particularly noteworthy is the increase in small businesses. Approximately one-third of the new plants represent individual investments of less than \$25,000. This spurt ahead in small businesses gives the industrial heart beat a stronger sound. Too often the small industry is overlooked in the flurry of excitement that precedes the coming of the large plant. In Tennessee, the small plant has proved its worth as the bulwark of the state's stable economy.

The small businesses are diversified in nature and many of them tend to keep going in bad times when the larger industries are forced to shut down or curtail operations. Even though small businesses in general do have a high mortality rate, when any one of them folds, only a relatively small group is affected. Usually the others help to plug the loss. This has been the experience in Tennessee.

The new industrial additions and expansions have provided more than 3,000 new jobs. According to recent reports of the Department of Employment Security, the state's manufacturing employment amounted to about 247,000 which was a gain of more than 5,000 over a comparable period last year.

Unemployment compensation claims reached a new low as employment moved rapidly toward an all-time high. Between June 1 and September 1, the number of claimants for unemployment insurance dropped almost 10,000.

The outlook for the next several months continues bright. Contracts for the armed forces and change-over to fall and winter patterns will keep the production of industry in high gear through the last quarter of the present year and into the first quarter of 1951.

Although nearly all firms are anticipating problems of replacement for men going into the armed services, there is no current specific occupational shortage in the state other than the usual demand for skilled workers in certain industries.

Moreover, no shortage is anticipated in the next few months unless there is a step-up in defense preparations and in draft and reserve personnel requirements.

On the agricultural front, the picture is not quite so bright. Tennessee farmers took a \$7,750,000 cut in their incomes during the first seven months of 1950. Although the decrease represented roughly a 4 per cent decline over a similar period last year, state farmers fared better than those of most of the other Southeastern states who had an overall average decrease in incomes of 14 per cent and slightly below the 7 per cent national average decrease. It is not anticipated that even with rising prices that by the end of the year the farmers' total income will equal that of their intake in 1949. Prolonged bad weather has played havoc in many sections.

The state is marching forward on the financial front too. Although Tennessee has the third largest debt of any southern states and the ninth largest state debt of all the states in the Union, the finances of the state are sound. Income during the third quarter of 1950 increased some \$367,353 over a like period in 1949. The fourth quarter receipts promise to be even better.

The accumulated general fund surplus at the close of the 1949-50 fiscal year was \$14,251,932. This included a general fund operating surplus for the year of \$5,050,489. Both the accumulated and operating surpluses far exceeded the original estimates of state and budget experts.

The state has gained in population too during the last decade although the gain was not large. Population figures may become more and more important to businessmen from other areas who are considering the pool of available labor and the number of consumers in the areas. These factors together with cheap, abundant power and a good climate continue to make Tennessee a particularly attractive prospective location for industry.

George Peabody College for Teachers

JAMES E. WARD

PERSONNEL NOTES

Conley R. Addington, professor of accounting, University of Miami, is on leave of absence to continue his graduate work at the University of Texas.

Russell C. Apple has been appointed associate professor of accounting, University of Tampa.

Roscoe Arant has been promoted to professor in industrial management at Georgia Institute of Technology.

James E. Bagwell has recently been appointed instructor on the staff of Economics and Business Administration at Alabama Polytechnic Institute.

Robert W. Barclay, formerly of Indiana University, has been appointed instructor in management, University of Miami.

Allen T. Barr has been appointed assistant professor of accounting and business administration at the University of Mississippi.

Earnest A. Beasley has been appointed instructor in the Department of Management, University of Miami.

Esther L. Beck, formerly on the staff of Secretarial Science at Miami University, has been appointed instructor at Alabama Polytechnic Institute.

Earl D. Bennett, associate professor of accounting at Louisiana Polytechnic Institute, is on leave of absence for this year to pursue graduate work.

James W. Bennett has been appointed instructor in economics and transportation at Alabama Polytechnic Institute.

Harold Bierman has been appointed instructor in accounting at Louisiana State University.

Alfred Bornemann has been appointed associate professor of finance, School of Business, Florida State University.

Daniel Borth, formerly at the University of Illinois, has been appointed professor of accounting and assistant comptroller at Louisiana State University.

R. O. Boston has been appointed instructor in economics at Alabama Polytechnic Institute.

William E. Breese, formerly of the State University of Iowa, has been appointed assistant professor of marketing, University of Florida.

Edwin C. Brown, associate professor of accounting at Mississippi State College, has resigned to enter private business.

Foy M. Buchanan has been appointed instructor in economics in the School of Business Administration, University of South Carolina.

D. C. Bunch of The Citadel has a year's leave of absence to do graduate work at Georgia Institute of Technology.

J. Whitney Bunting, formerly dean of the School of Business Administration at Hobart University, is now professor of economics and in charge of work in economics at the Atlanta Division, College of Business Administration, University of Georgia.

Gilbert Bythewood has been appointed instructor in business administration at Louisiana State University.

Fred E. Case, formerly of Indiana University, is now serving as interim assistant professor of real estate in the Department of Real Estate, University of Florida.

Ernest P. Clark, Jr., has been appointed instructor in accounting, School of Business, Florida State University.

T. C. Cobb has been appointed assistant professor of economics at Louisiana State University.

Eric S. Cogan, formerly on the staff of U. S. Air Forces Institute, Dayton, Ohio, is now instructor in geography and economic resources at Florida Southern College.

Marshall R. Colberg has been appointed associate professor of economics, Florida State University.

Jay A. Craven, formerly at the University of California, has been appointed assistant professor of business statistics, University of Miami.

Claudine Crawley has been appointed instructor in secretarial science at Louisiana Polytechnic Institute.

Cylas L. Crenshaw has been appointed assistant in farm management at Clemson Agricultural College.

G. William Crist, Jr., recently retired from his position as vice-president of Fidelity and Deposit Company of Maryland, is now associate professor of insurance, University of Florida.

L. C. Curry has been appointed associate professor of accounting at Louisiana Polytechnic Institute.

Bernard E. Dail has been appointed instructor in economics, Clemson Agricultural College.

L. A. Dale, assistant professor of labor at the University of Florida, resigned to accept a traveling fellowship in the field of labor, with headquarters in Paris, France.

J. Frank Dame, who has been director of business education, Florida State University since 1948, has been appointed dean of the newly established School of Business at that institution.

Marion Dantzler, adjunct professor of accounting at the University of South Carolina, has resigned and accepted the position of assistant business manager of the University.

Richard E. Darby has been appointed instructor in accounting, University of Tampa.

Paul M. Dauten, Jr., has been appointed associate professor of statistics, School of Business, Florida State University.

Fannie P. Davis, associate professor of secretarial science at Louisiana Polytechnic Institute, is on leave for this year.

S. M. Derrick has returned to his position as dean of the School of Business Administration, University of South Carolina, after having spent the spring semester at the Harvard Graduate School of Business Administration as visiting professor.

Jack Duncan has been appointed instructor in business statistics, University of Miami.

Mary F. Dustan, formerly at Florida State University, has been appointed assistant professor of commerce at Mississippi Southern College.

John M. Dyer has been appointed part-time instructor in marketing, University of Miami.

Robert Emmer has resigned as associate professor of business administration at Louisiana Polytechnic Institute in order to pursue graduate work.

John M. Erickson has been appointed assistant professor of business communications in the College of Commerce and Business Administration, Tulane University.

John T. Etheridge is on leave from the School of Industrial Management, Georgia Institute of Technology, working on his doctorate at the University of California.

Thomas Eudy has been appointed instructor in business administration at Southeastern Louisiana College.

Relda Farmer has resigned her instructorship in economics at Louisiana State University.

Arnold L. Fellows, formerly with the University of Illinois, has been appointed associate professor of business communications in the College of Commerce and Business Administration at Tulane University.

John C. Fetzer, formerly professor of economics at Rutgers University, has been appointed professor of economics and chairman of the Department of Economics, University of Miami.

M. C. Fischer of The Citadel has resigned to go to Bucknell University.

C. M. Forrest of The Citadel has a year's leave of absence to do graduate work.

Charles W. Fristoe, formerly on the staff of the University of Arkansas, is now assistant professor of economics, University of Florida.

Tilford C. Gaines has been appointed instructor of economics, Florida State University.

Reid W. Gattis has been appointed interim part-time instructor in the Department of Real Estate, University of Florida.

Joseph E. Goodbar is now professor of business administration and head of the Department of Business Administration, University of Tampa.

J. W. Griffin is on leave from the School of Industrial Management, Georgia Institute of Technology, to do graduate work at the University of Indiana.

George A. Gustafson is now assistant professor of business administration at the School of Business Administration, Emory University.

William H. Harris is now assistant professor of business administration at the Atlanta Division, College of Business Administration, University of Georgia.

Harold A. Heiser has been appointed associate professor of business administration, University of Tampa.

William Heuson has been promoted to assistant professor of finance, University of Miami.

Alex Hodgkins has resigned his position as research associate in the Department of Agricultural Economics, Louisiana State University, to accept a position at the University of Arkansas.

Marvin Hoffman, instructor in marketing at Mississippi State College, has resigned to re-enter graduate school.

Melvin Clyde Hughes, associate professor of public administration at the University of Georgia, has transferred from the Athens campus to the Atlanta Division of the College of Business Administration.

Melvin Humphrey has been appointed instructor in business administration at Southern University.

Werner Husman resigned as professor of agricultural economics at Clemson Agricultural College. He is now managing Apshawa Groves and is teaching farm management at the University of Florida.

Howard Johnston, instructor in the Department of Real Estate, University of Florida, is on military leave serving in the U. S. Marine Corps.

Sebell C. Jones has resigned her position as instructor in secretarial science at Southern University.

Sterling Jones has been appointed instructor in economics at Southern University.

Victor S. Karabasz, formerly professor of management at the Wharton School and management consultant in the North, has been appointed professor of management, University of Miami.

Frank L. Keller, formerly at Rutgers University, has been appointed associate professor of resources in the College of Commerce and Business Administration, Tulane University.

Milton Kelnner has been promoted to assistant professor of business law, University of Miami.

E. J. Kilberg has been appointed instructor in economics at Alabama Polytechnic Institute.

A. J. Kunze, Jr., has returned to The Citadel after a year's leave of absence to do graduate work at Wharton School of Commerce and Finance. He has been promoted to assistant professor.

Carey Lewis has been appointed instructor in accounting at Southern University.

C. Albin Lindquist has been appointed instructor in marketing, School of Business, Florida State University.

Thomas J. Luck, formerly of Indiana University, has been appointed assistant professor of labor, University of Florida.

Donald E. Lundberg has been appointed professor of hotel and restaurant management, School of Business, Florida State University.

E. V. McCollough has been appointed assistant professor of accounting at Louisiana State University.

John B. McFerrin, head of the Department of Business Organization and Operation at the University of Florida, was re-elected secretary-treasurer of the Southern Economic Association at its last annual meeting.

R. J. McLaurin has been appointed instructor in accounting at Alabama Polytechnic Institute.

George E. Maddox is now assistant professor in industrial management at Georgia Institute of Technology.

J. J. Mahoney of The Citadel has a year's leave of absence to do graduate work.

F. R. Marshall has been appointed instructor in economics at Louisiana State University.

L. S. Master has returned to The Citadel after a year's leave of absence to do graduate work at Duke University. He has been promoted to assistant professor.

Maurice C. Maxwell, instructor in accountancy at the University of Mississippi, has resigned to do graduate study at New York University.

Joseph G. Mayton, formerly with Air Forces Intelligence, is now professor of economics at the Atlanta Division, College of Business Administration, University of Georgia.

Leon Megginson has resigned as instructor in business administration at Louisiana State University in order to pursue graduate work.

Gilbert M. Mellin, formerly a member of the faculty at the University of Pittsburgh, has been appointed assistant professor of economics at Tulane University.

Charles Merritt has been appointed lecturer in business administration at Xavier University, New Orleans.

John C. Mettler of The Citadel has a year's leave of absence to do graduate work at Clark University.

A. C. Michaelis, associate professor of management at Tulane University, has returned to duty after a one semester leave of absence.

Harold Miller has been appointed lecturer in management in the College of Business Administration, Loyola University, New Orleans.

Robert Miller has been appointed instructor in business statistics, University of Miami.

Alexander J. Morin has resigned as chairman of the Economics Department of Fisk University in order to accept an appointment as research associate in the Department of Economics of the University of Chicago. He will study the socio-economic impact of mechanization on the Delta cotton area.

Lois Nola, who was assistant professor of accountancy at the University of Florida, died in June 1950.

Carter C. Osterbind, formerly on the staff of the U. S. Bureau of Labor Statistics and instructor at American University, is now assistant research economist in the Bureau of Economic and Business Research, University of Florida.

C. S. Overmiller has been appointed assistant professor of business administration at Louisiana State University.

J. E. Pierce, formerly on the staff of the University of Tennessee, has been appointed assistant professor of insurance, University of Florida.

Edward W. Plodzik, formerly assistant professor of accounting at Tulane University, has resigned to accept a position at Washington University.

Evelyn Pope, formerly of Dominican College in New Orleans, has been appointed instructor in secretarial science in the School of Business Administration at the University of South Carolina.

James W. Price has been appointed graduate assistant in economics and business administration at the University of Mississippi.

Thomas Pryor has been appointed instructor of commerce at Mississippi Southern College.

King S. Pushard of The Citadel has a year's leave of absence to do graduate work at the University of Houston.

B. U. Ratchford, professor of economics at Duke University, was elected vice-president in charge of membership of the Southern Economic Association at its last annual meeting.

Jimmy Reddoch has been appointed instructor in business administration at Louisiana State University.

Robert M. Robinson, formerly a member of the faculty at the University of California, has been appointed assistant professor of economics at Tulane University.

Roderick Rouse has been appointed assistant professor of business administration at McNeese State College.

Ewell P. Roy has been appointed research associate in agricultural economics at Louisiana State University.

Frank Sabella, who was assistant professor of insurance at the University of Florida and a member of the Southern Economic Association, died in August 1950.

Gary Salzman has been promoted to assistant professor in the Department of Management, University of Miami.

R. H. Sanders has been appointed assistant professor of sociology in the Department of Economics and Sociology at Alabama Polytechnic Institute.

K. C. Schubel of The Citadel has resigned to enter business.

Glenn A. Scott, who has been serving as professor of management at the University of Miami, has been appointed chairman of the newly created Department of Business Statistics there.

Glenn R. Scott, formerly at the University of Oklahoma, has been appointed instructor of accounting at Mississippi Southern College.

Miriam E. Secor has been appointed instructor in secretarial science, School of Business, Florida State University.

A. M. Sharp has joined the staff as instructor in economics at Alabama Polytechnic Institute.

Kenneth M. Shaver has been appointed assistant professor of business law, School of Business, Florida State University.

Roy T. Shaw, assistant professor in the School of Business, Florida State University, is on leave of absence to continue graduate work at Ohio State University.

Hugh T. Shockley of the Department of Business Administration, Wofford College, died in June 1950.

W. G. Shover, formerly professor of economics at Florida State University, is now professor of marketing in the School of Business at that institution.

Edward C. Simmons has been promoted to professor of economics at Duke University.

Richmond Slay has been appointed research associate in the Department of Agricultural Economics, Louisiana State University.

John Slocum has been changed from instructor to lecturer in the Department of Management, University of Miami.

D. M. Smith has resigned as instructor in accounting at Louisiana State University in order to accept a position at the University of New Mexico.

Joseph J. Spengler of Duke University is studying the role of values in economic thought and behavior as part of a research program being conducted by the Department of the Church and Economic Life of the Federal Council of Churches of Christ in America. The work is being carried on under the terms of a Rockefeller Foundation Grant.

Harry Stark has been appointed lecturer in international economics, University of Miami.

Dan Steinhoff, Jr., professor of management, has been appointed director of the Evening Division, University of Miami.

George W. Stocking, head of the Department of Economics at Vanderbilt University, was elected vice-president in charge of program of the Southern Economic Association at its last annual meeting. He was visiting professor at the University of Texas for the first half of the current academic year.

Harold L. Streetman has been appointed assistant agricultural economist in farm management, Clemson Agricultural College.

Mary F. Suggs has been appointed instructor in secretarial science at Southern University.

Ernst W. Swanson, professor of economics at Emory University, was elected to the board of editors of *The Southern Economic Journal* at the last annual meeting of the Southern Economic Association.

Samuel S. Talbert is on leave of absence from the University of Mississippi during the 1950-51 session to do graduate study at the State University of Iowa.

James Terry has resigned as instructor in business administration at Southern University.

Sam B. Tidwell, assistant professor of accounting at Mississippi Southern College, is on leave to do graduate study at the University of Iowa.

B. J. Todd, formerly of the Georgia Experiment Station, has been added to the staff of the South Carolina Experiment Station at Clemson Agricultural College as assistant agricultural economist.

Edward D. Trembly has been appointed professor of accounting, School of Business, Florida State University.

Wallace D. Trevillian has returned to the staff of Clemson Agricultural College after a year on study leave at the University of California at Berkeley.

Wendell P. Trumbull, professor of accountancy at the University of Mississippi, was on leave of absence during the fall semester of the 1950-51 session to do graduate study at the University of Michigan.

James C. Vadakin has resumed his work at the University of Miami after a year's leave of absence and has been promoted to assistant professor of economics.

Theilie Waggoner has resigned as lecturer in business administration at Xavier University, New Orleans.

Basil A. Wapensky is now instructor in economics at the School of Business Administration, Emory University.

James E. Ward, head of the Department of Economics at George Peabody College for Teachers, was elected president of the Southern Economic Association at its last annual meeting.

John T. Watkins, instructor in accounting at Mississippi State College, has resigned to enter public accounting.

W. Bruce Weale has been appointed associate professor of marketing, School of Business, Florida State University.

G. Carl Wiegand has been appointed associate professor of economics and business administration at the University of Mississippi.

Travis Williamson, formerly of the University of Texas, has been appointed instructor in commerce at Centenary College.

A. T. Wilson of The Citadel has a year's leave of absence to do graduate work at the University of Minnesota.

Walter M. Wilson has been appointed part-time instructor in the Department of Marketing, University of Miami.

Albert E. Wolff has resigned as associate professor of marketing at Loyola University, New Orleans, in order to return to active military service.

Reinhold P. Wolff, professor of economics, University of Miami, has been appointed director of the newly established Bureau of Business and Economic Research at that institution.

Charles A. Wurst has been appointed instructor in marketing, University of Miami.

James I. Young has returned to The Citadel after a year's leave of absence to do graduate work at Wharton School of Commerce and Finance. He has been promoted to assistant professor.

John A. Young, instructor in marketing at Mississippi State College, has resigned to enter private business.

Joseph H. Young has been promoted to professor at the University of Miami and made chairman of the Department of Business Education.

Sadie G. Young has been promoted to professor of economics at Florida State University.

The following names have been added to the membership of the Southern Economic Association:

W. E. Barksdale, Mississippi Agricultural and Industrial Board, Box 849, Jackson, Miss.

W. H. Baxley, Jr., 1734 N. W. 1st Avenue, Gainesville, Fla.

Gilbert S. Biggs, 173 Milky Way Street, Clemson, S. C.

Ralph H. Blodgett, Department of Economics, University of Florida, Gainesville, Fla.

Carl E. Calohan, Building "D", University of Florida, Gainesville, Fla.

Flournoy A. Coles, Jr., Box 4, Texas State University, Houston 4, Tex.

Thomas H. Carroll, II, School of Business Administration, University of North Carolina, Chapel Hill, N. C.

Glenn W. Fisher, 119 West Creswell, Greenwood, S. C.

Charles W. Fristoe, Department of Economics, University of Florida, Gainesville, Fla.

William D. Geer, Box 82, Mars Hill, N. C.

D. Trotter Jones, Associated Industries of Alabama, 812 Comer Building, Birmingham, Ala.

Thomas J. Luck, 1118 N. W. 1st Place, #5, Gainesville, Fla.

H. H. Mitchell, School of Business Administration, University of North Carolina, Chapel Hill, N. C.

Carter C. Osterbind, Building "D", University of Florida, Gainesville, Fla.

G. Winston Summerhill, College of Business Administration, University of Florida, Gainesville, Fla.

Basil A. Wapensky, Box 725, Emory University, Ga.

Millard F. Wilson, Catawaba College, Salisbury, N. C.

NOTE

Program of the Twentieth Annual Conference of the Southern Economic Association held at the International House in New Orleans, Louisiana, November 10-11, 1950

FRIDAY, NOVEMBER 10, 1950

9:00 a.m.—Meeting of the Executive Committee

10:00 a.m.—Morning Session

Chairman: James W. Martin, University of Kentucky

Topic: The Measurement of County Income

1. The General Approach to the Cooperative Study of the Measurement of Income by Counties

Lorin A. Thompson, University of Virginia

2. The Problems of Concepts and Technical Procedures and Methodologies for Purposes of the Multi-State Study

Lewis C. Copeland, Tennessee Valley Authority

3. Specific Problems

- a. Income from Dividends and Interest

Charles P. White, University of Tennessee

- b. Income from the Operation of Farms

H. H. Chapman, University of Alabama

- c. Income from Federal Payments

E. P. Truex, University of North Carolina

- d. Income Estimates and the Intra-State Situs Problem

John L. Lancaster, University of Virginia

- e. Income Estimates and the Inter-State Situs Problem

Madelyn Lockhart, University of Kentucky

- f. Importance of Detailed Breakdown for Income Allocation

David McKinney, University of Mississippi

2:00 p.m.—Afternoon Session

Chairman: Robert W. French, The Tulane University of Louisiana

Topic: Accelerating and Decelerating Factors in the Economic Development of the South: Implications

Calvin B. Hoover, Duke University

Frank T. deVyver, Duke University

Joseph J. Spengler, Duke University

6:00 p.m.—Dinner Meeting

Board of Editors and State Reporters of the Southern Economic Journal and Officers of the Association

8:00 p.m.—Evening Session

Chairman: William G. Zetzmann, President, Zetz 7-Up Bottling Company, New Orleans

Presidential Address: "Transition to Democracy—Transition to Wealth"

David McCord Wright, University of Virginia

SATURDAY, NOVEMBER 11, 1950

9:00 a.m.—Business Meeting

10:00 a.m.—Morning Session

Chairman: William T. Hicks, University of Georgia

Topic: Foreign and Domestic Policy and Southern Agriculture

1. The Effect of Foreign Policy on the Southern Agricultural Problem

Buford Brandis, Emory University

2. The Effect of Domestic Policy on the Southern Agricultural Problem

John L. Fulmer, University of Virginia

Discussion

John F. Moloney, National Cottonseed Products Association

W. H. Baughn, Louisiana State University

W. E. Hendrix, Georgia Agricultural Experiment Station

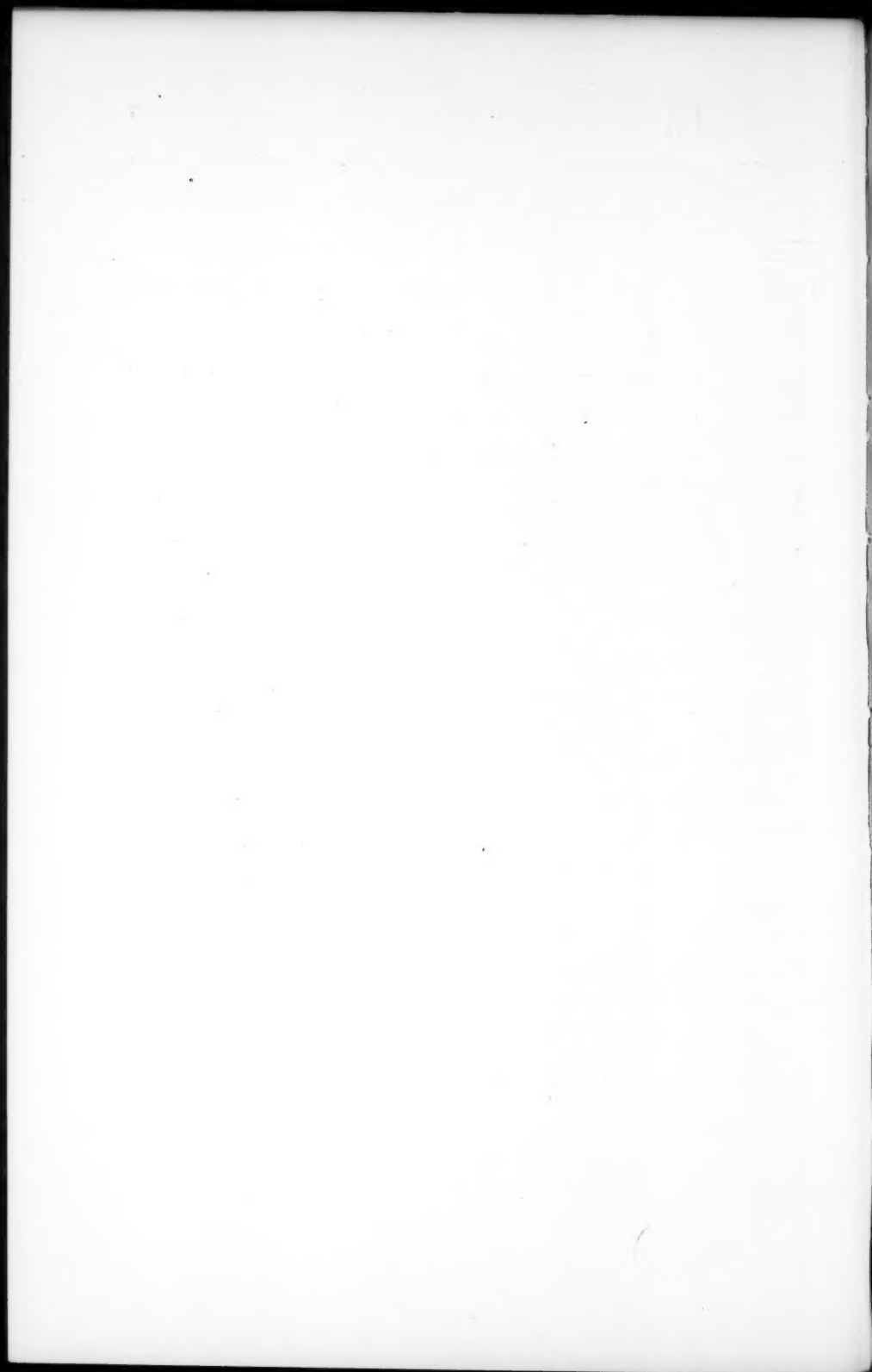
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- Some Aspects of the Problem of Transporting Fresh Vegetables from Texas.* By W. B. Langford and Jean D. Neal. College Station: Agricultural and Mechanical College of Texas, 1950. Pp. v, 62.
- First Course in Probability and Statistics.* By J. Neyman. New York: Henry Holt and Co., 1950. Pp. ix, 350. \$3.50.
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